

GL02583

Schlumberger

SIMULTANEOUS
COMPENSATED NEUTRON-
FORMATION DENSITY

COUNTY	FIELD	LOCATION	WELL	COMPANY															
COMPANY E G & G																			
WELL INEL # 1																			
FIELD WILDCAT																			
COUNTY BUTTE STATE IDAHO																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">LOCATION</td> <td colspan="3"></td> </tr> <tr> <td>API SERIAL NO.</td> <td>SEC.</td> <td>TWP.</td> <td>RANGE</td> <td></td> </tr> <tr> <td></td> <td>1</td> <td>3N</td> <td>29E</td> <td></td> </tr> </table>					LOCATION					API SERIAL NO.	SEC.	TWP.	RANGE			1	3N	29E	
LOCATION																			
API SERIAL NO.	SEC.	TWP.	RANGE																
	1	3N	29E																
Other Services: DIL DLL/GR HRT FIL/GR BGT PHC/GR HDT																			
Permanent Datum: GL ; Elev.: 4874.86 Log Measured From GL , 0 Ft. Above Perm. Datum Drilling Measured From GL																			
Date 3/3/79 3/27/79 5/19/79 Run No. ONE TWO THREE Depth-Driller 1524 3555(STRAP) 10333 Depth-Logger 1557 3554 10121 Btm. Log Interval 1554 3552 10118 Top Log Interval 340 1488 3559 Casing-Driller 30" @ 40' 20 @ 151' 13 3/8@3559 Casing-Logger 1511 3559 Bit Size 26" 17.50 12.25 Type Fluid in Hole FGM LSND FRESH WATER Dens. Visc. 8.5 50 8.8 57 pH Fluid Loss ml 8.0 13.6ml ml ml Source of Sample MUD TANK MUD TANK MUD TANK Rm @ Meas. Temp. 6.07 @ 45 °F 8.57 @ 70 °F @ °F Rmf @ Meas. Temp. 5.77 @ 75 °F 8.94 @ 59 °F @ °F Rmc @ Meas. Temp. 9.11 @ 45 °F 12.86 @ 70 °F @ °F Source: Rmf Rmc M C M C Rm @ BHT 4.34 @ 63 °F 5.22 @ 116 °F 1.75 @ 260 °F TIME Circulation Stopped 4/4 @ 0300 3/27 @ 0130 5/18 @ 0200 Logger on Bottom 4/4 @ 1100 3/27 @ 1630 0130 Max. Rec. Temp. 63 °F 116 °F 260 °F Equip. Location 8073 EVSTN 8060 EVSTN 8056 EVSTN Recorded By RAIVO ROONEY PRADLEY Witnessed By Mr. T. E. NEWMAN STRAWN/NELSON / STRAWN																			

FOLD HERE: The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE	TWO	THREE
Service Order No.	72963	40303	74054
Fluid Level	FULL	FULL	FULL
Salinity, PPM CL.	250	N/A	
Speed - F.P.M.	30	30	30

EQUIPMENT DATA	
Dens. Panel	284
Dens. Cart.	104
Dens. Skid.	98
Dens. Sonde	82
Dens. Source	5308
Dens. Calibrator	25
Neut. Panel	284
Neut. Cart.	1364
Neut. Source	1307
Neut. Calibrator	1371
GR Cart.	2055
Memorizer Panel	CSU
Tape Recorder (TRR)	CSU
Depth Encoder (DRE)	CSU
Pressure Wheel (CPW)	CSU
Centralizers: Type ECCEENT No. BOWSPRING	ONE
In-line, or None S. O. - Inches	

CALIBRATION DATA

BKG. CPS API	34	47	46.25
Source CPS API	197	195	213.10
Sens. - Cal	150/TRK	0-165	0-150
T. C. - Cal	AUTO	AUTO	AUTO
Short Spacing - Before Log	2.28	RATIO CAL	RATIO =
Long Spacing - Before Log	2.28	= 2.22	2.26
Short Spacing - After Log	P1 - Before Log	RATIO CAL	RATIO =
Long Spacing - After Log	P2 - Before Log	= 2.22	2.27
P1 - After Log	387	329	428
P2 - After Log	695	584	728
P1 - After Log	324	428	CALS
P2 - After Log	590	728	USED

LOGGING DATA

DEPTH	CNP			FDC	GR		
Top	Bottom	Porosity Scale	Matrix	Auto Corr. or Hole Size Setting	Porosity Scale	Grain Density	Liquid Density
340	1554	20/TK	SS	AUTO	20/TK	2.65	1.0
1488	3552	20/TK	SS	AUTO	20/TK	2.65	1.0
3559	10118	20/TRK	SS	AUTO	20/TK	2.65	1.0

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

TENS(LB)	2	0.0
NPHI	2	0.0
DPHI	2	0.0
NPHI	2	0.3000
DPHI	2	0.3000
CAPL	2	30.00
CAPL	2	30.00
CAPL	2	30.00

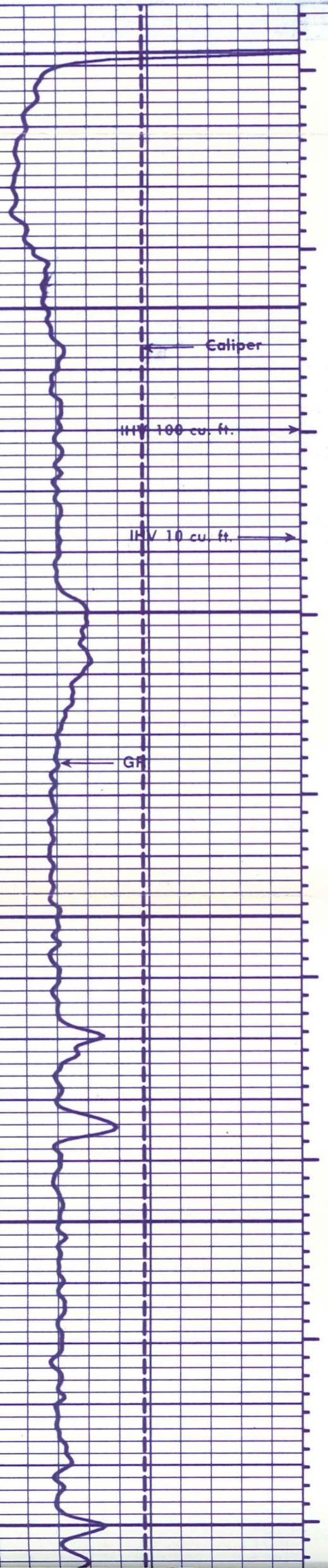
3559	10118	20/TRK	SS	AUTO	20/TK	2.65	1.0	L10	0-150AUTO	0	150
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CALICIN >	
20.00	30.00
0.0	150.0

GR (GAPI)

TENSCLB >	
10000.	0.0
0.7000	0.3000
0.3000	-0.100
0.3000	-0.100



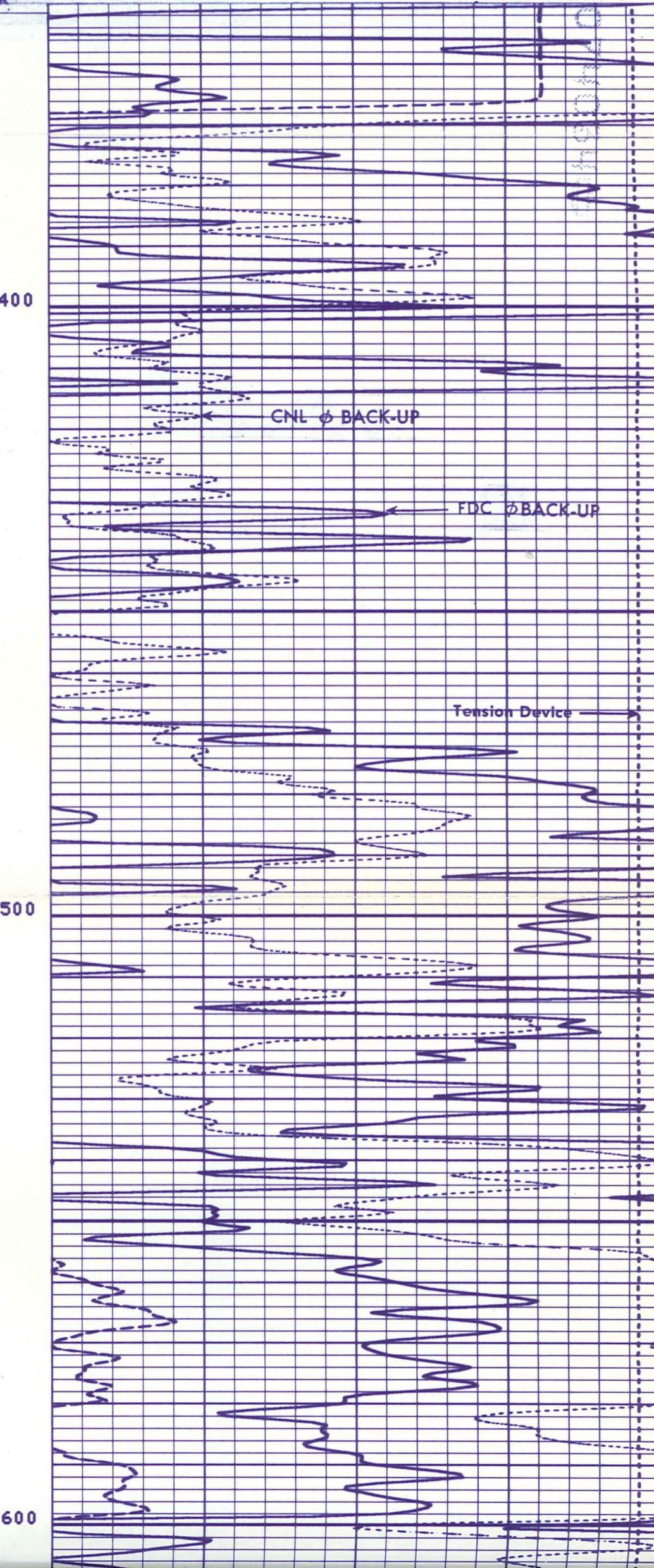
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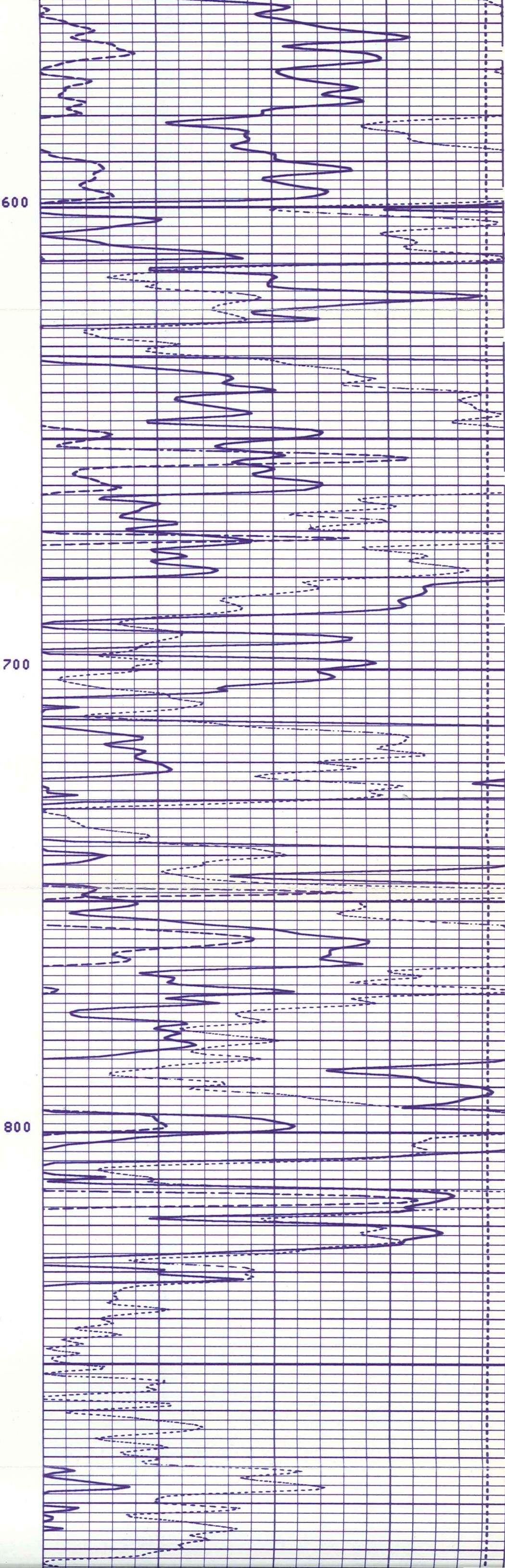
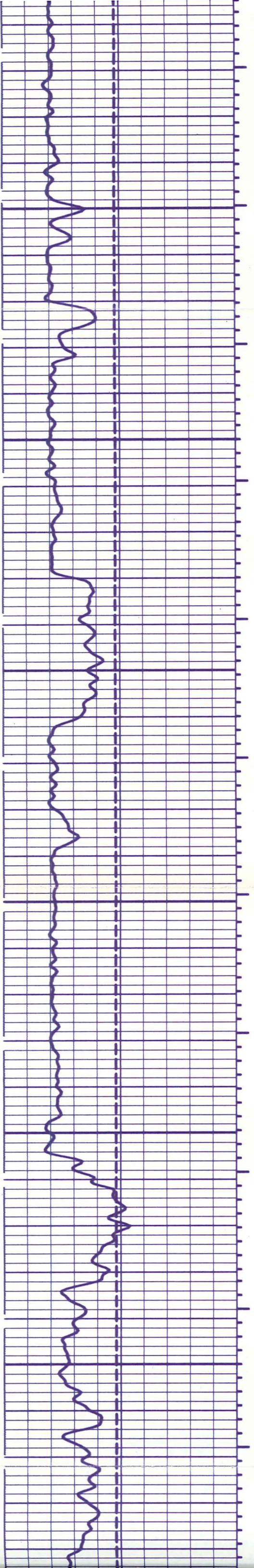
LR

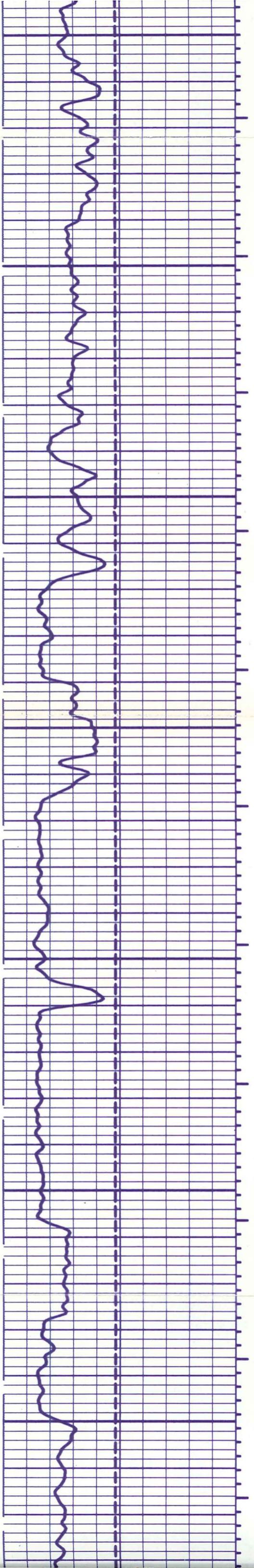
400

500

600



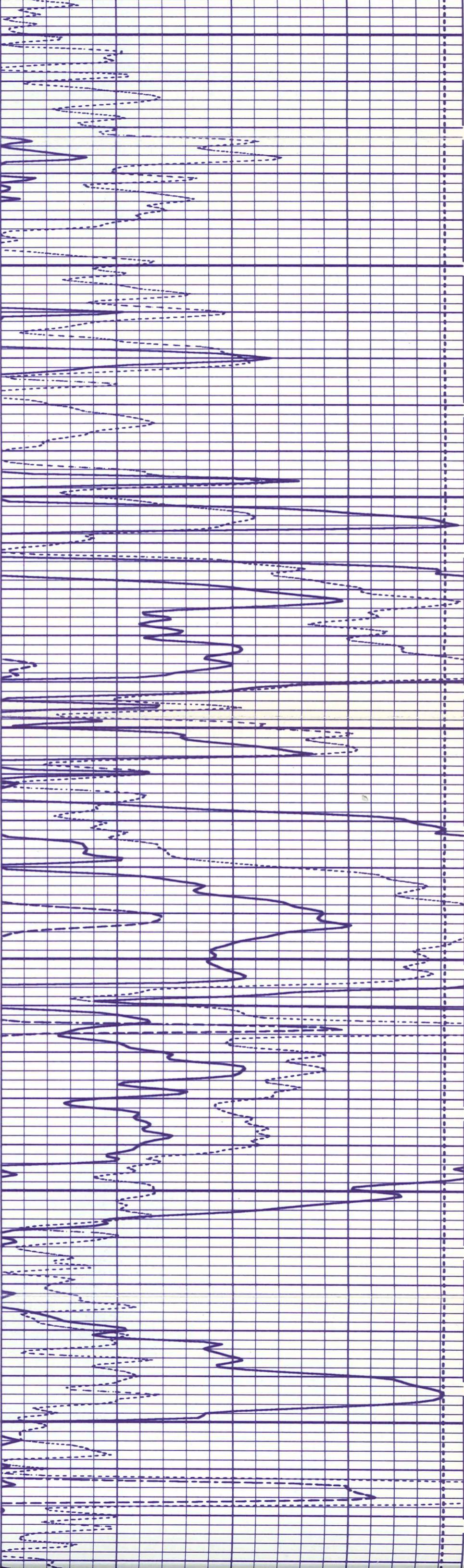


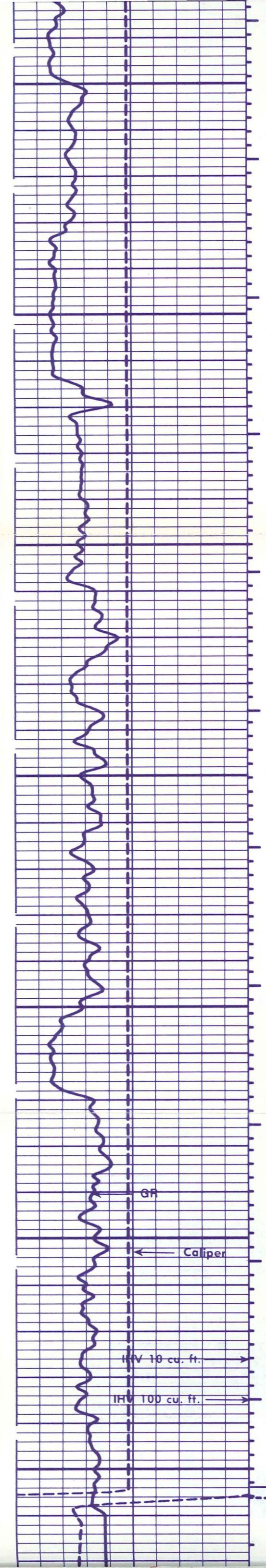


900

1000

1100





1200

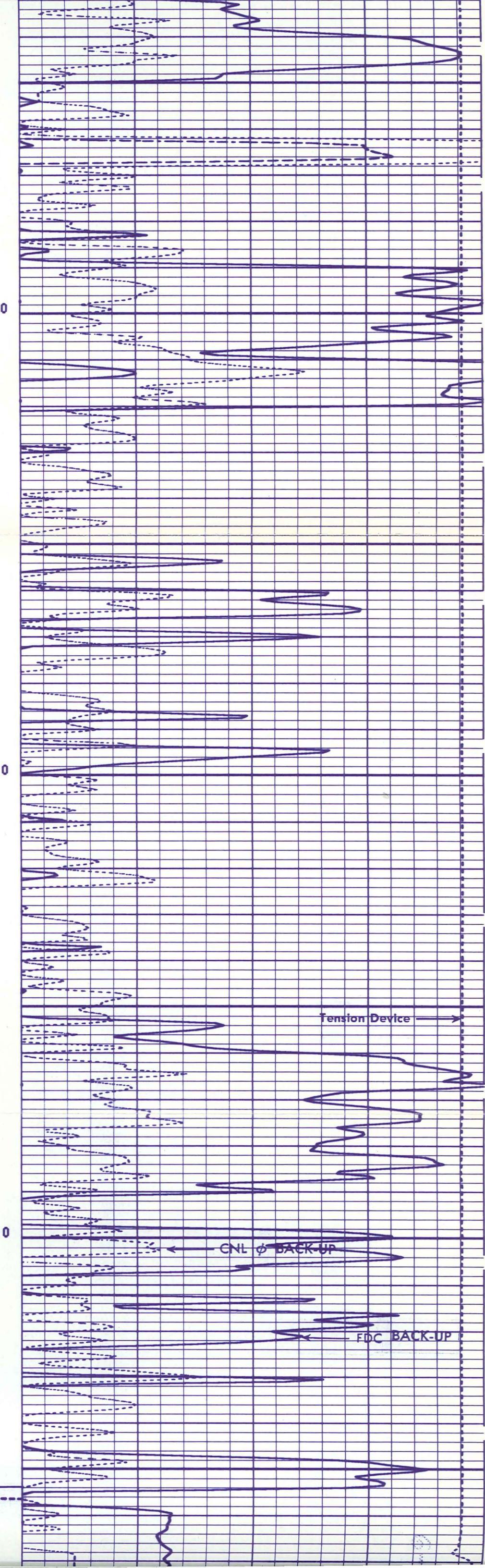
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1400

GR
← Caliper

IV 10 cu. ft.
IH 100 cu. ft.

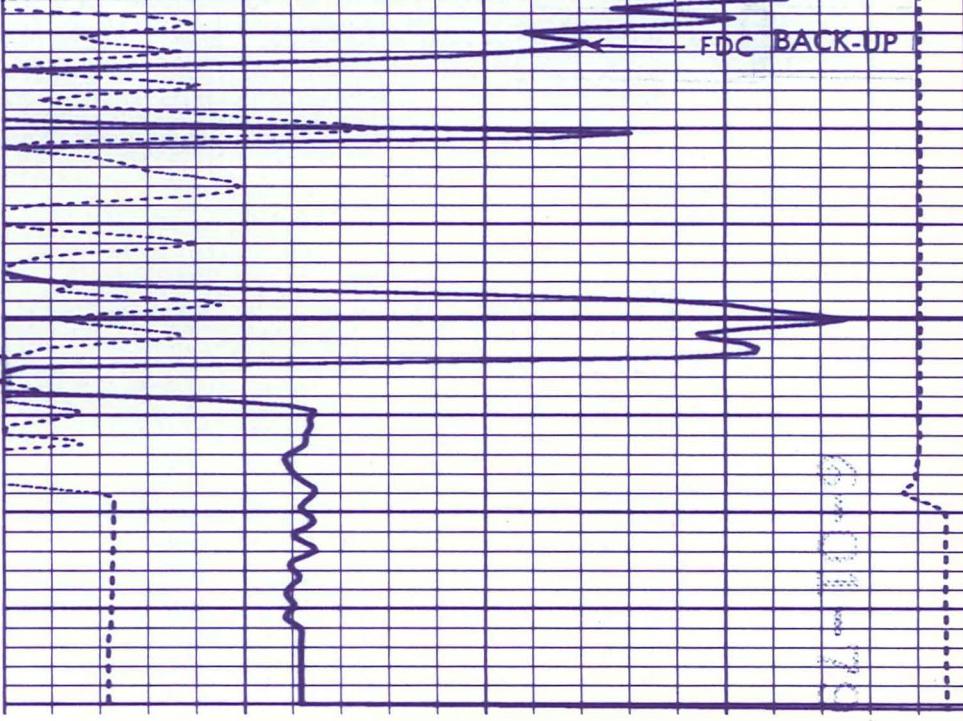
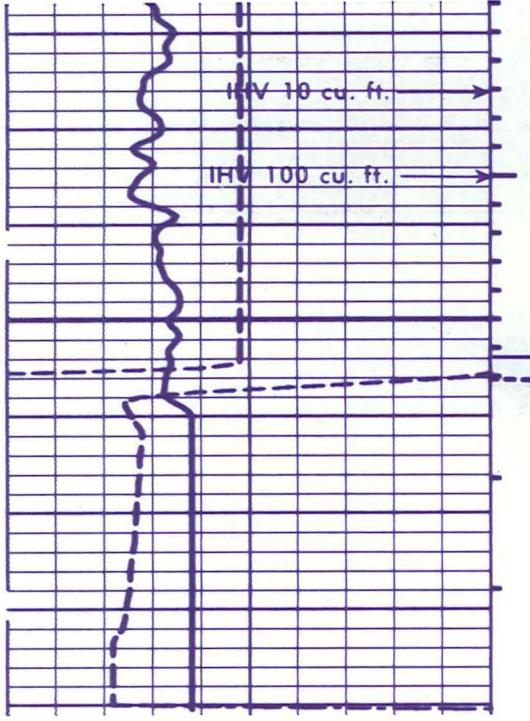
FR



Tension Device →

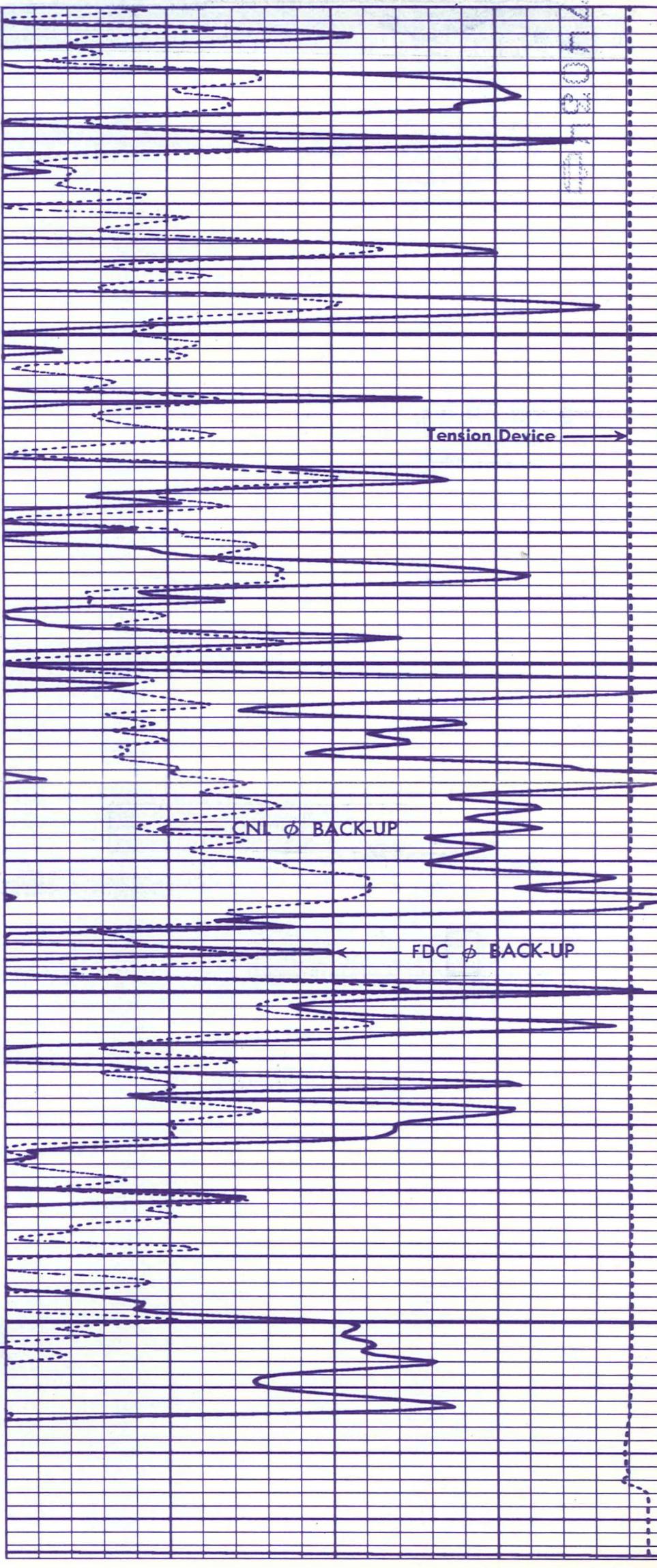
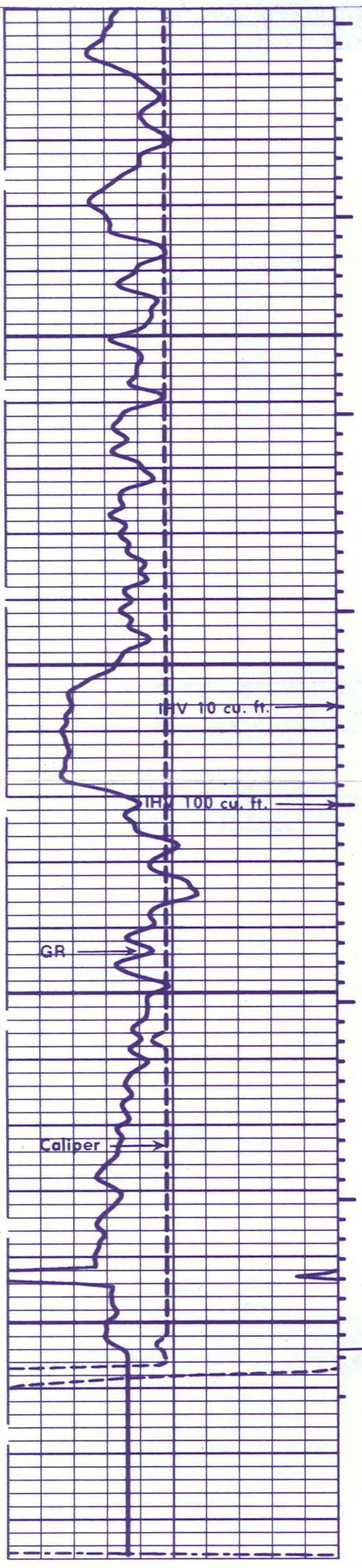
CNL φ BACK-UP

FDC BACK-UP

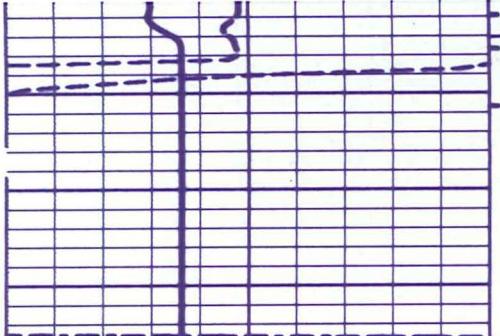


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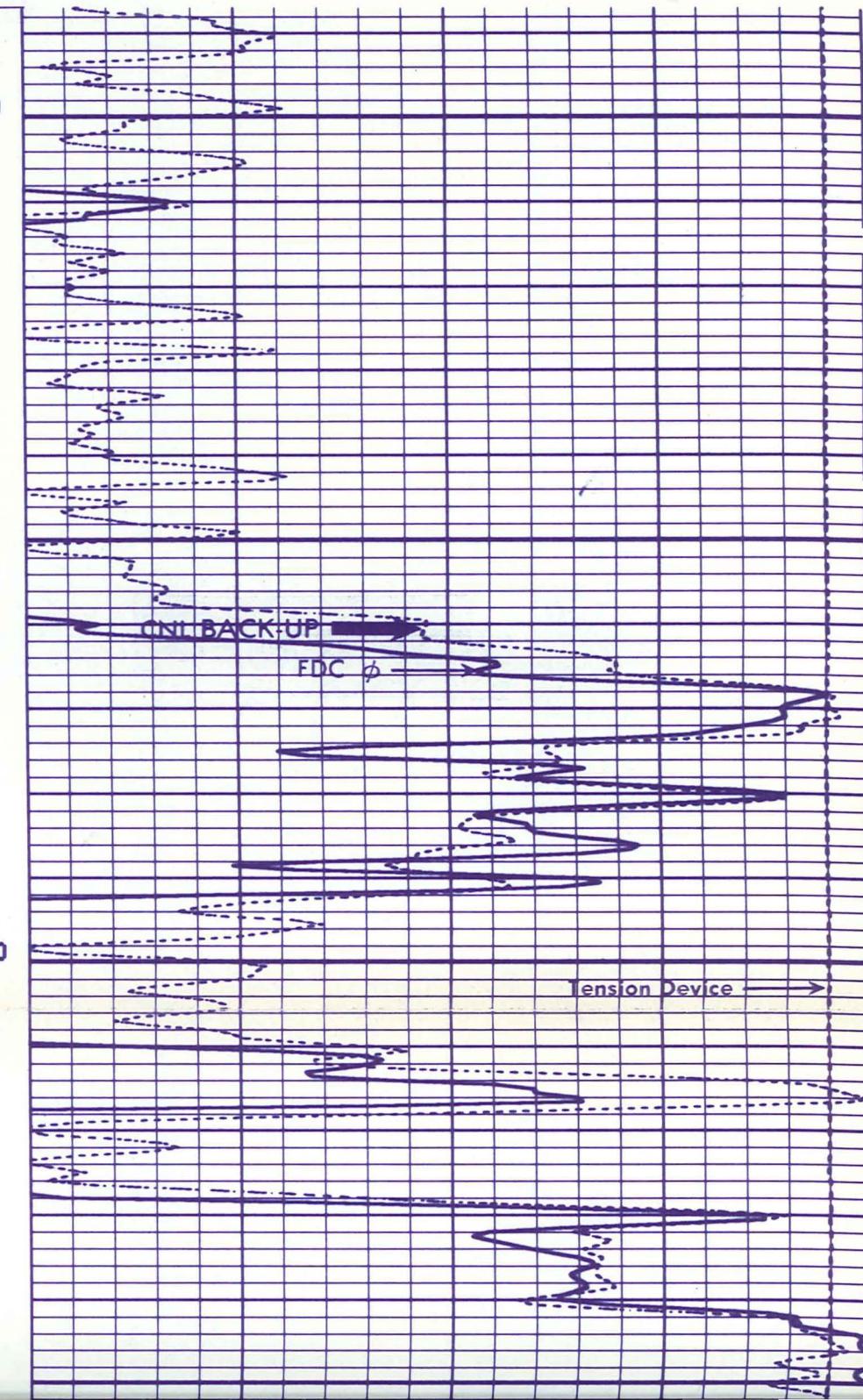
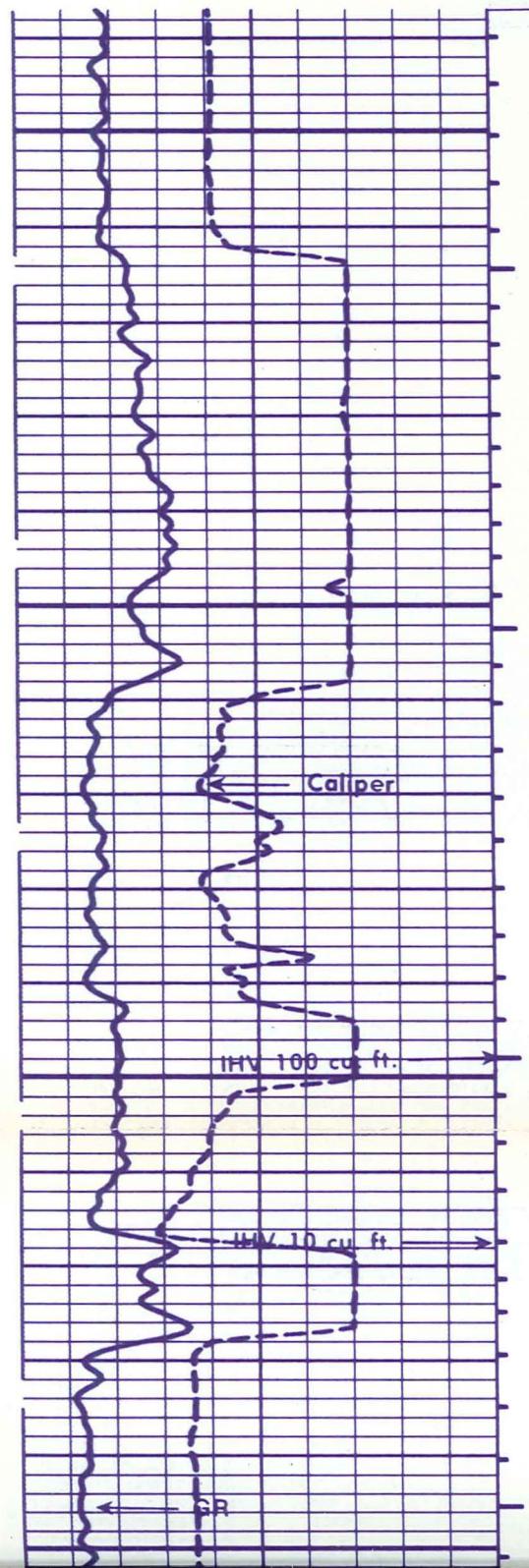
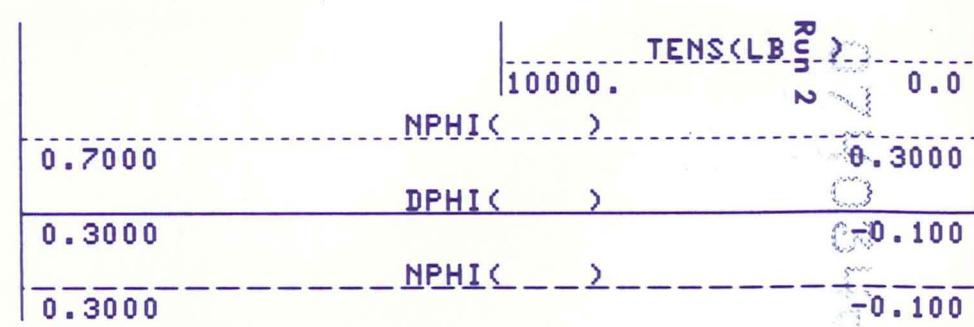
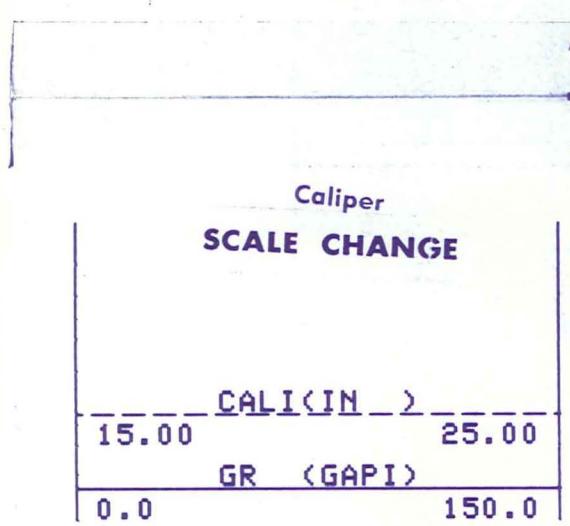
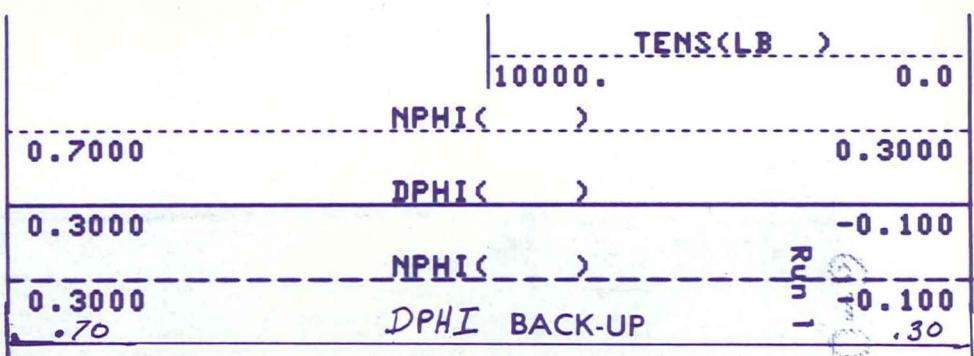
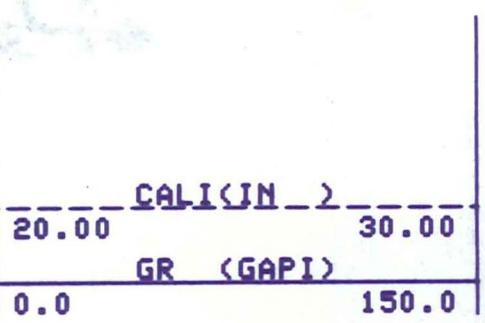
REPEAT SECTION

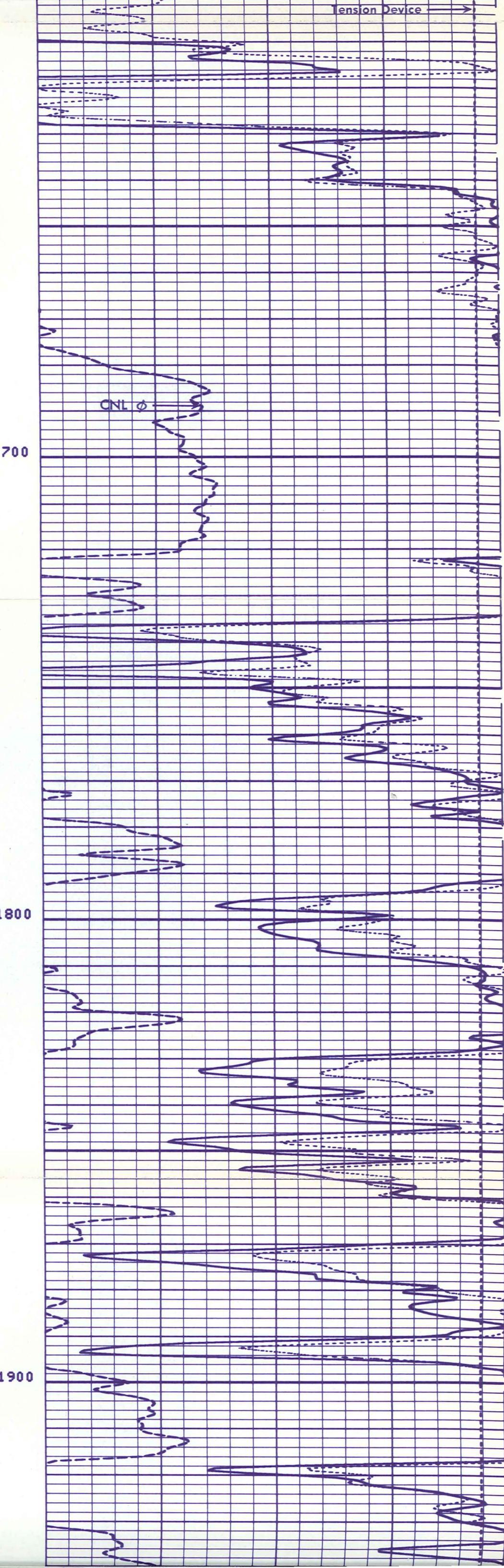
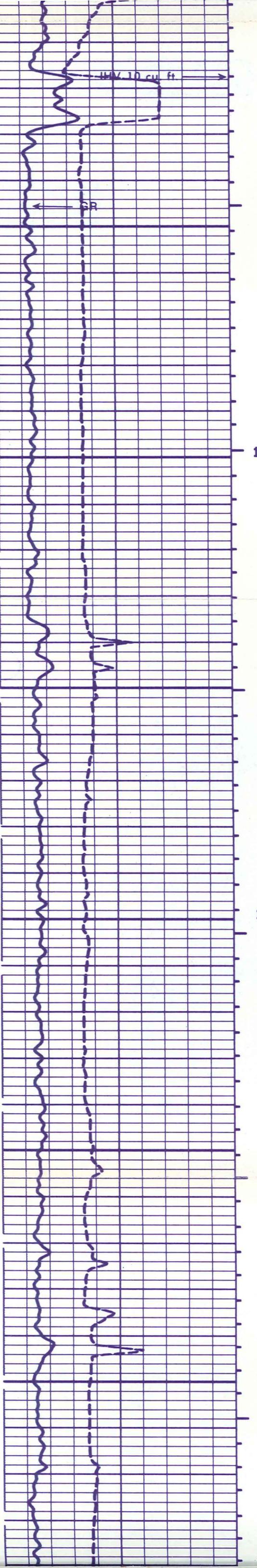


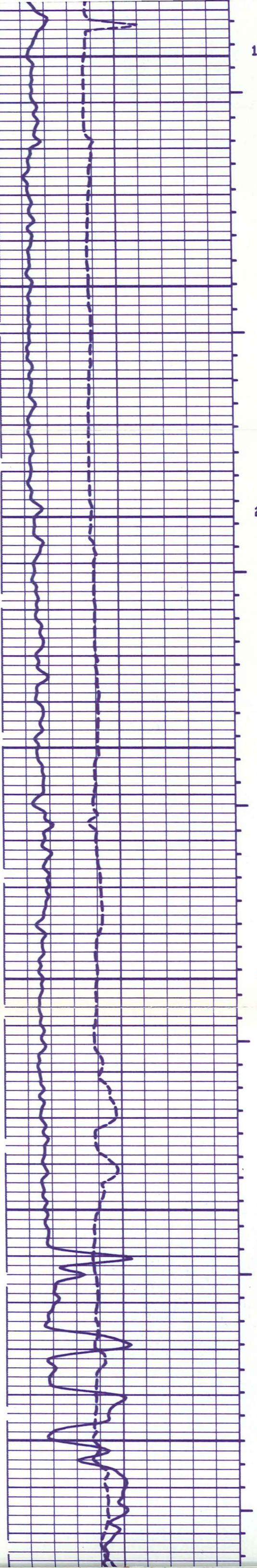
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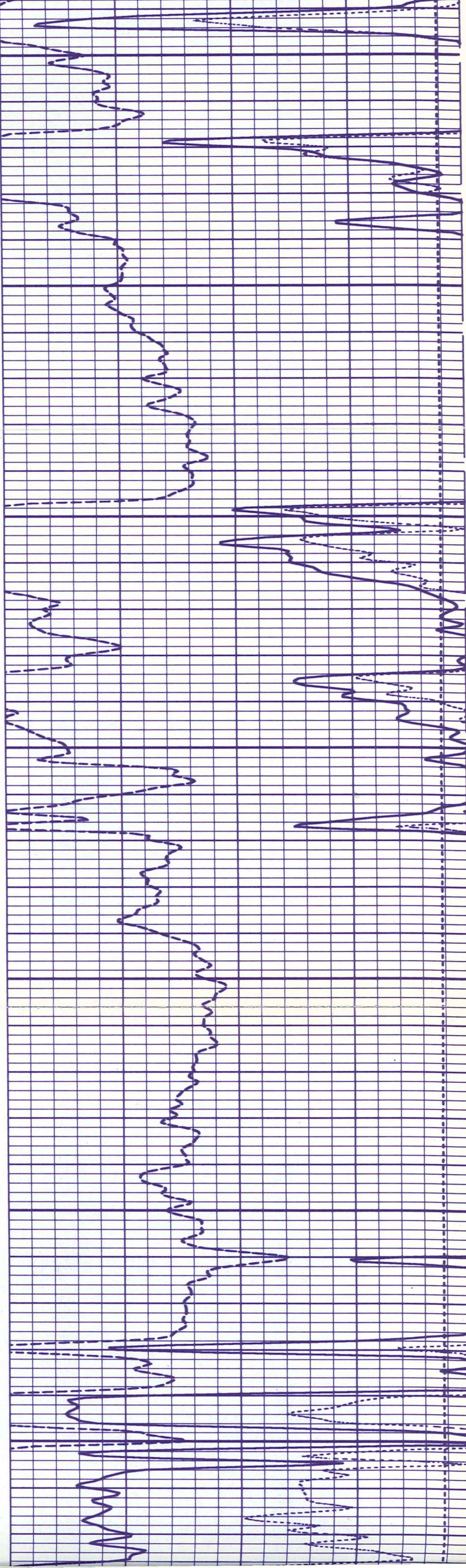


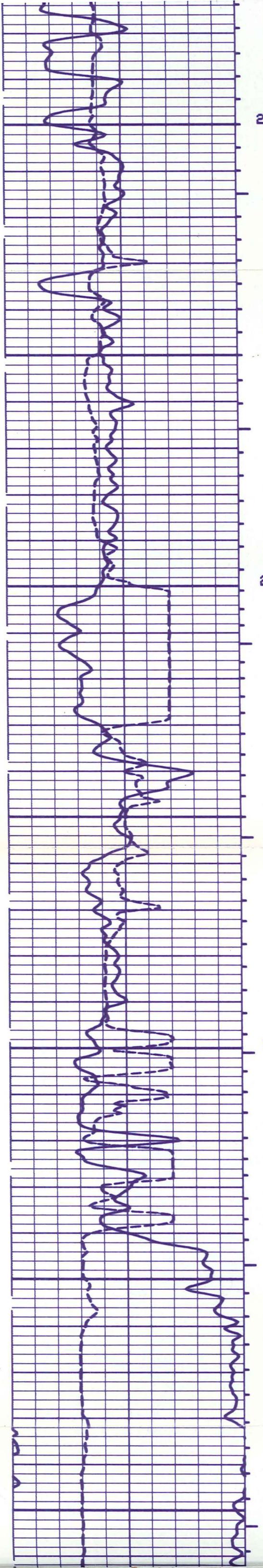
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2000

2100

2200



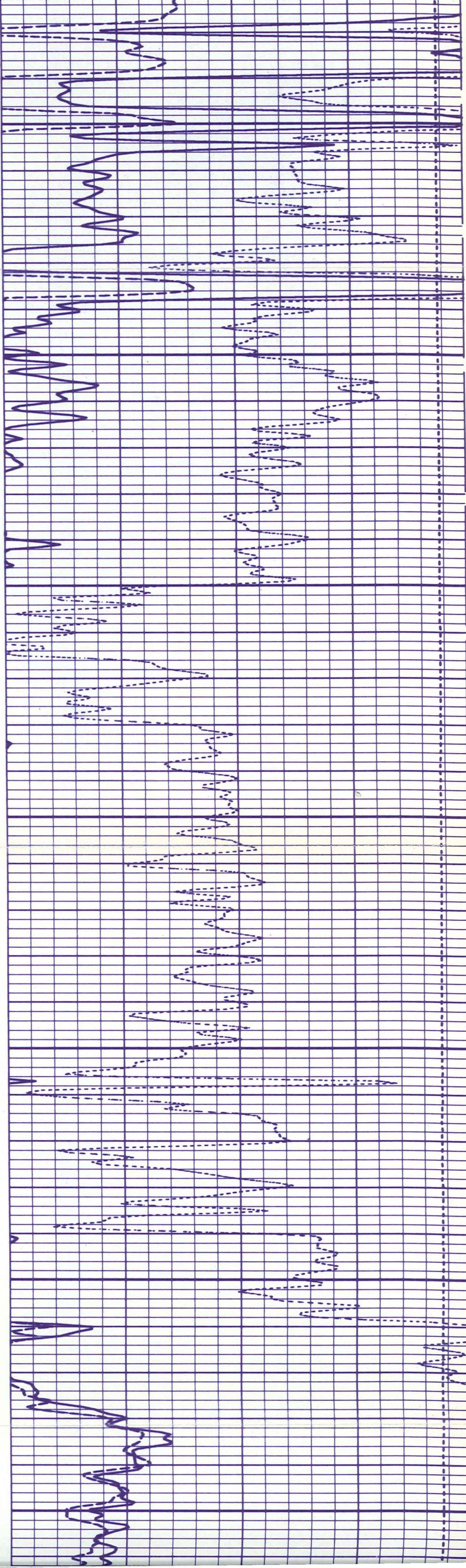


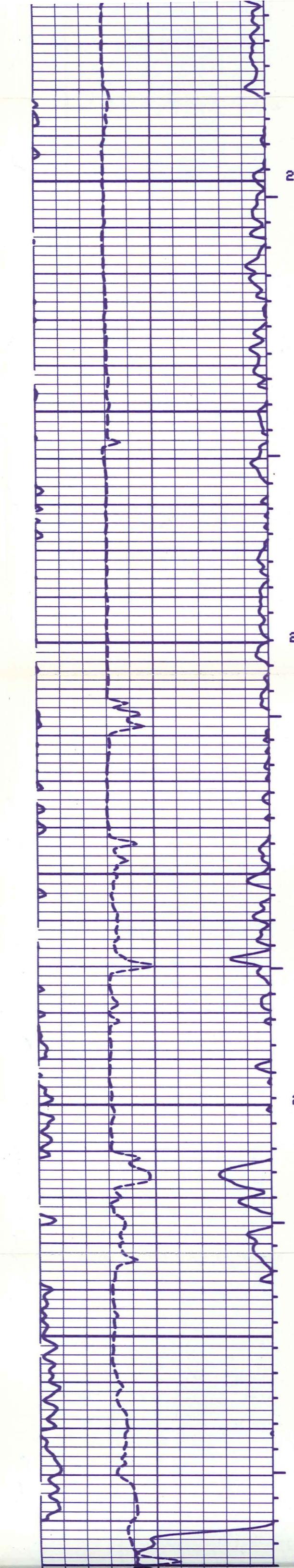
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2300

2400

2500



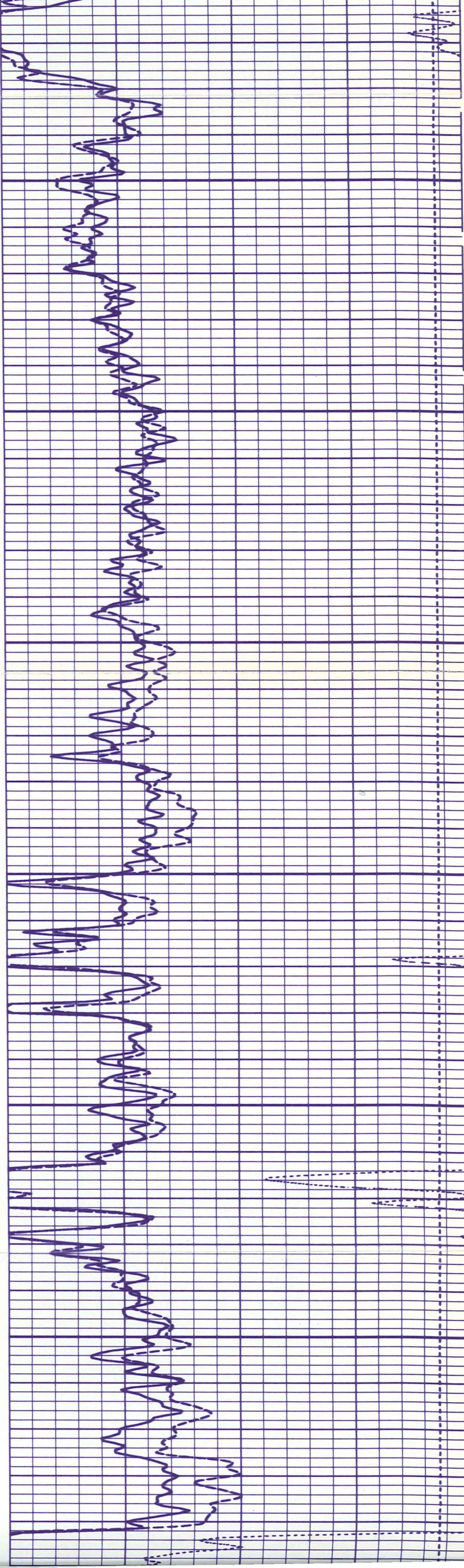


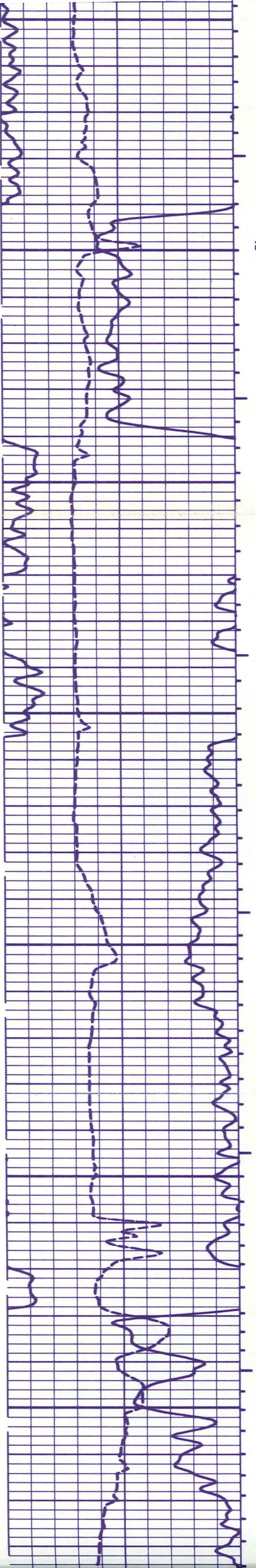
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2600

2700

2800

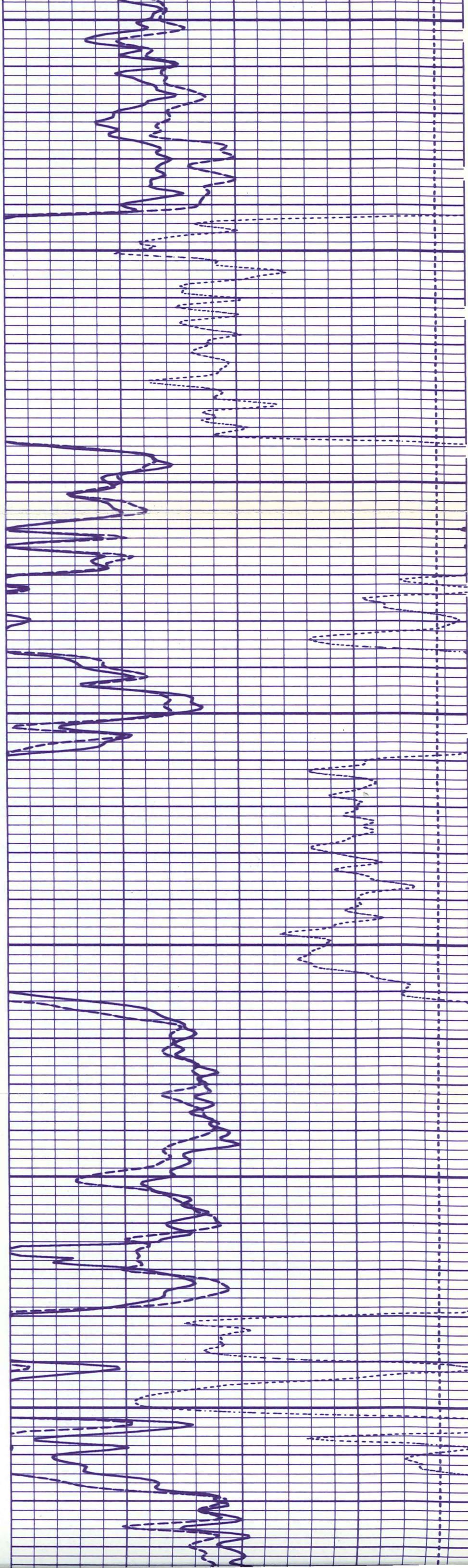


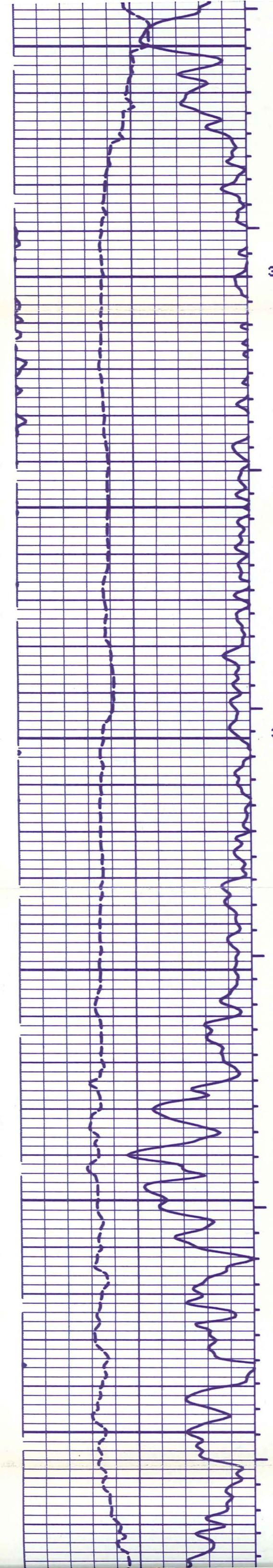


2800

2900

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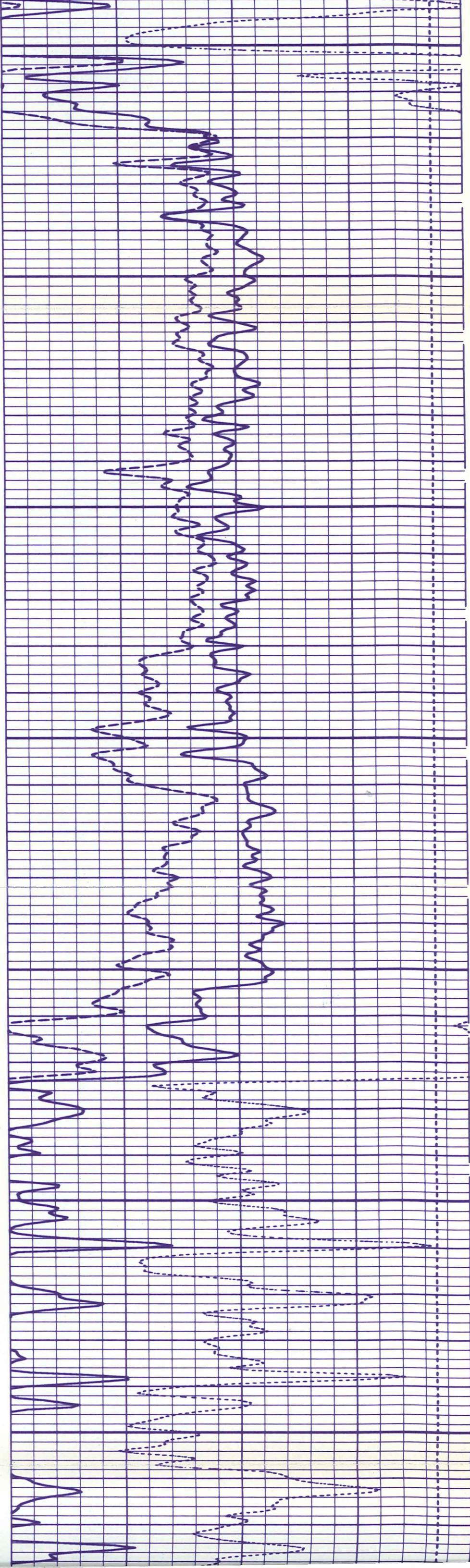


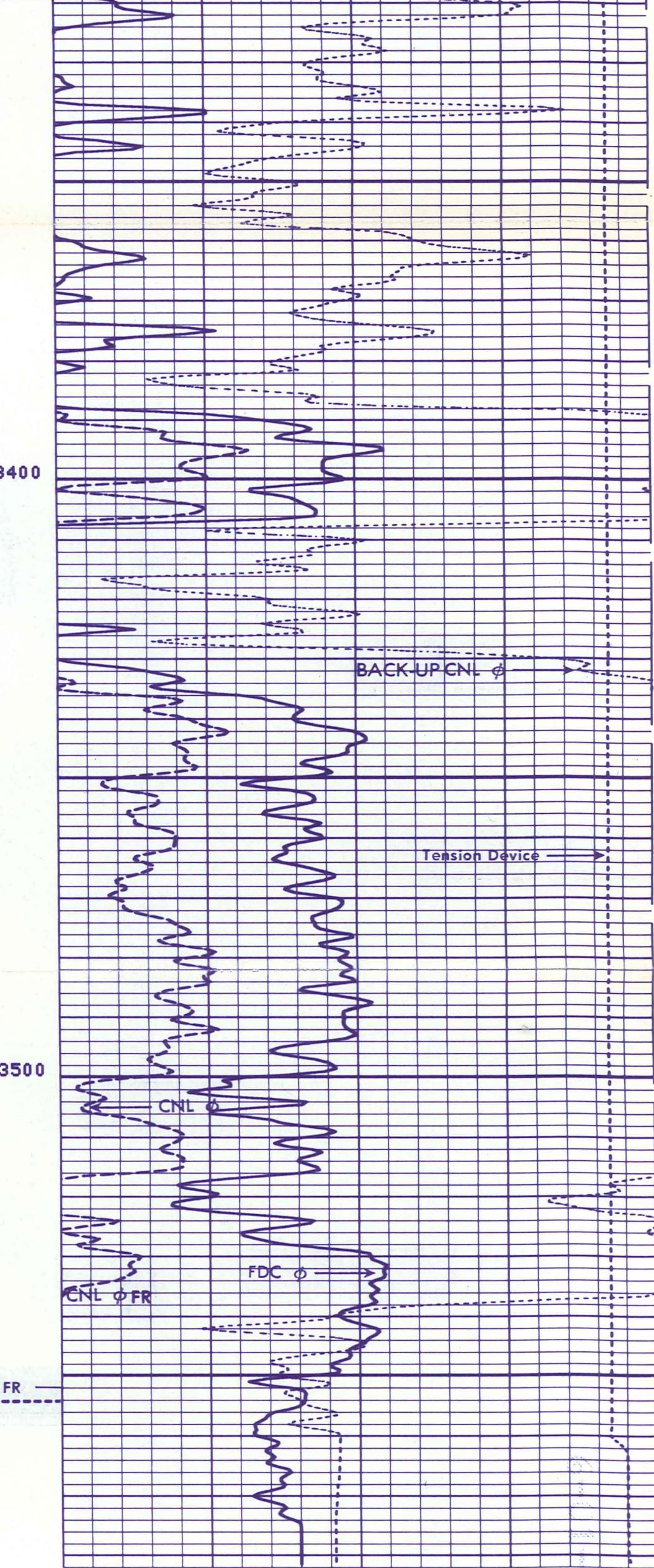
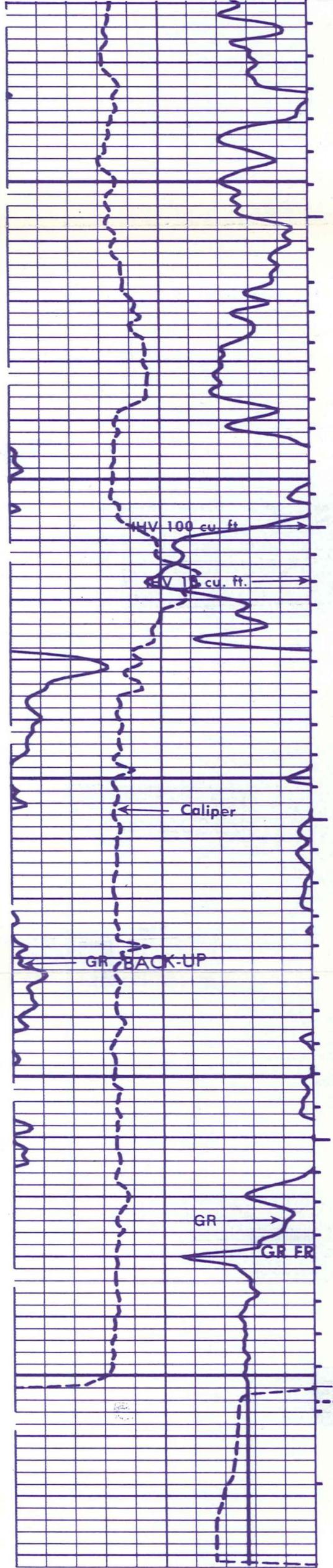


3100

3200

3300

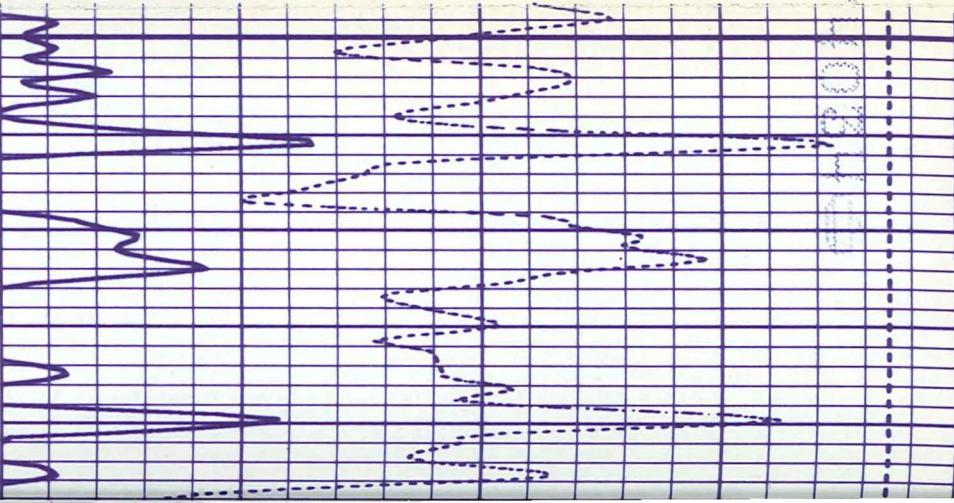
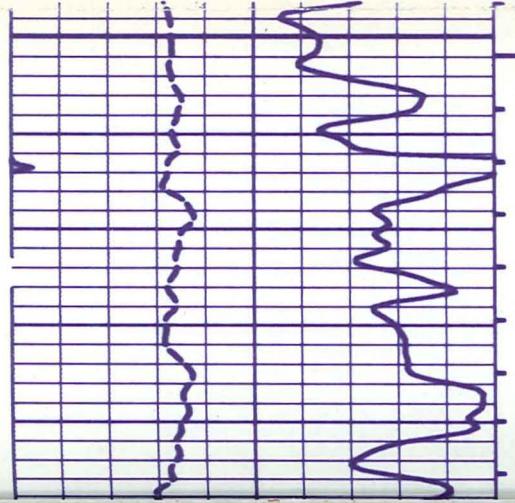


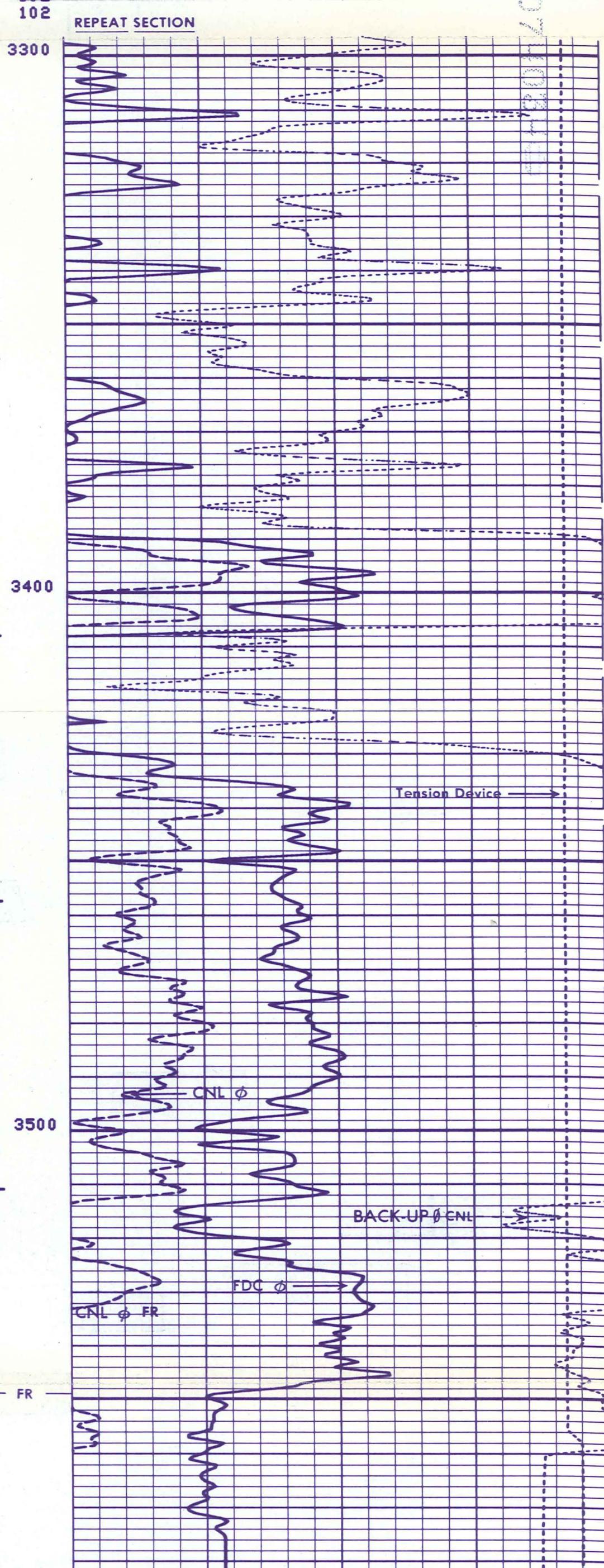
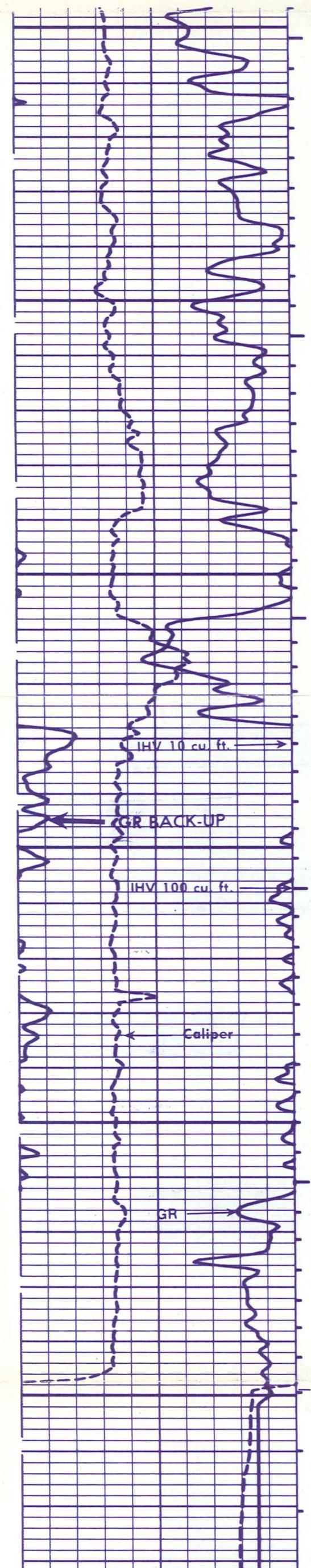


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102

REPEAT SECTION

3300



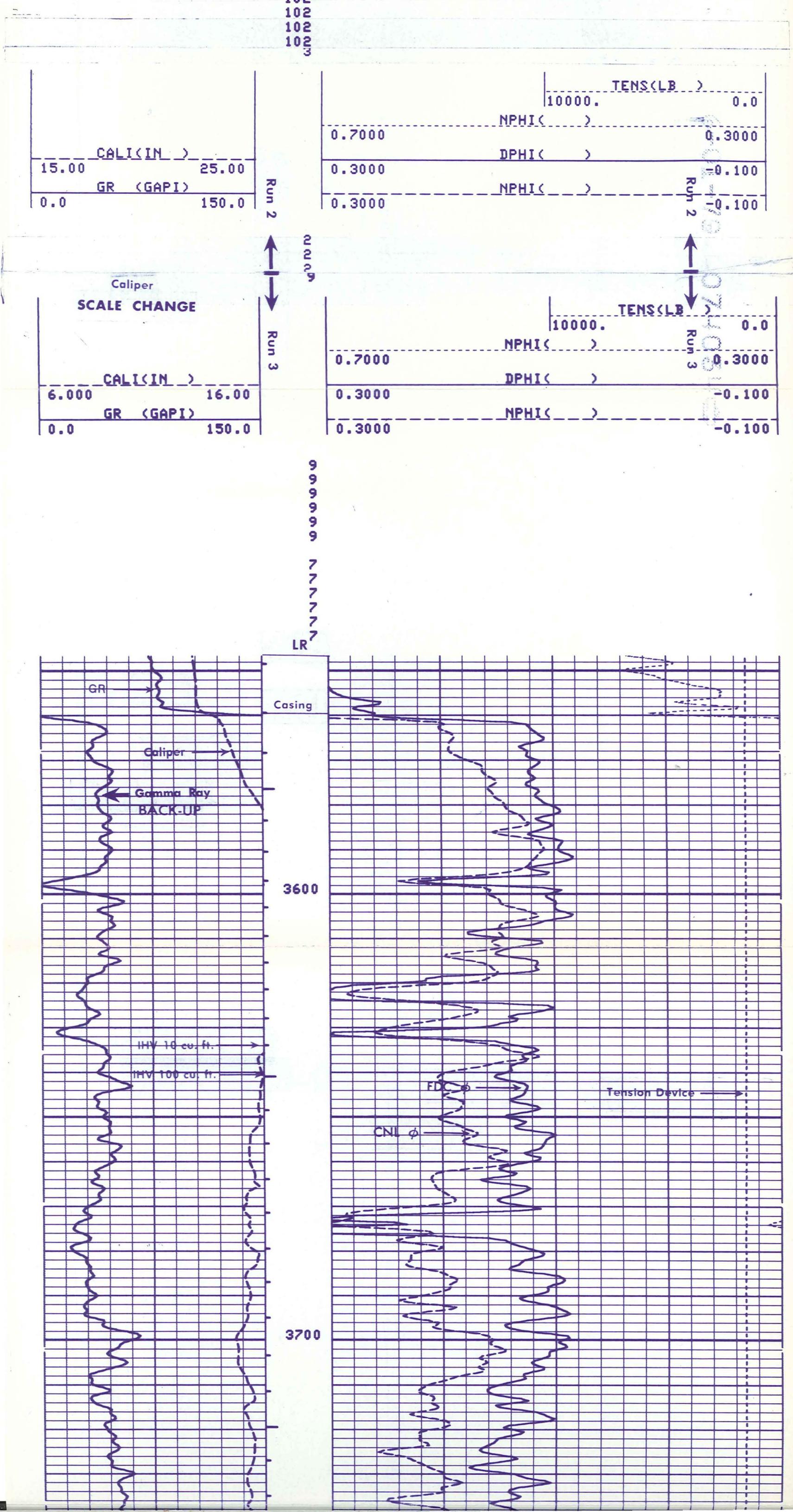


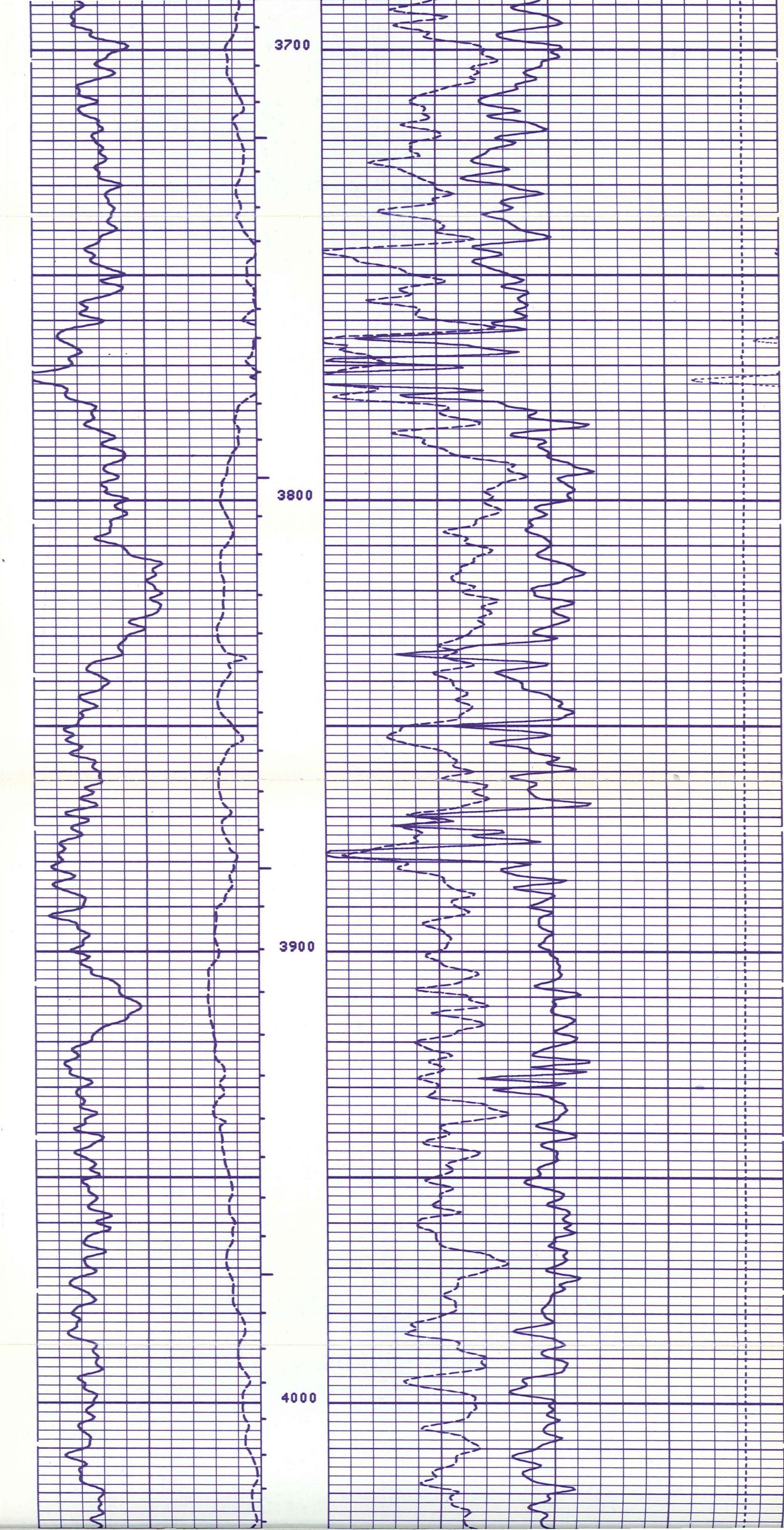
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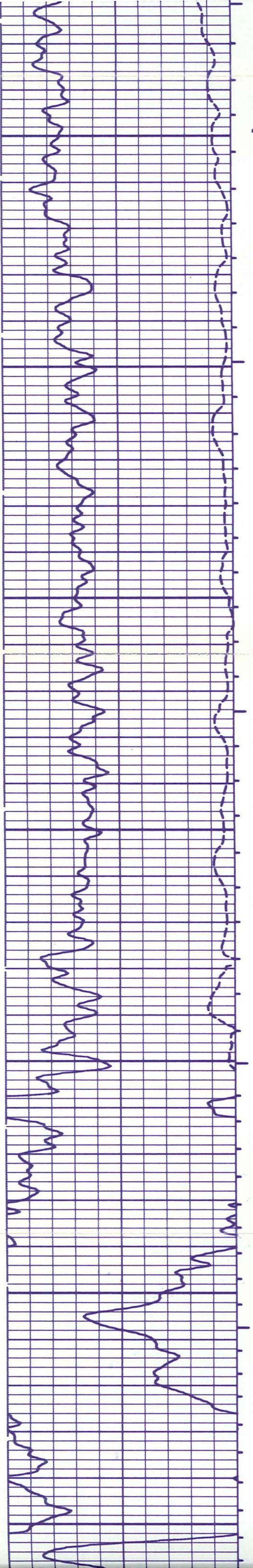
CALI(IN) >
15.00 25.00
GR (GAPI)

Ru

TENS(LB.)	
10000.	0.0
NPHIC >	
0.7000	0.3000
DPHIC >	
0.3000	-0.100
NPHIC >	
	Ru





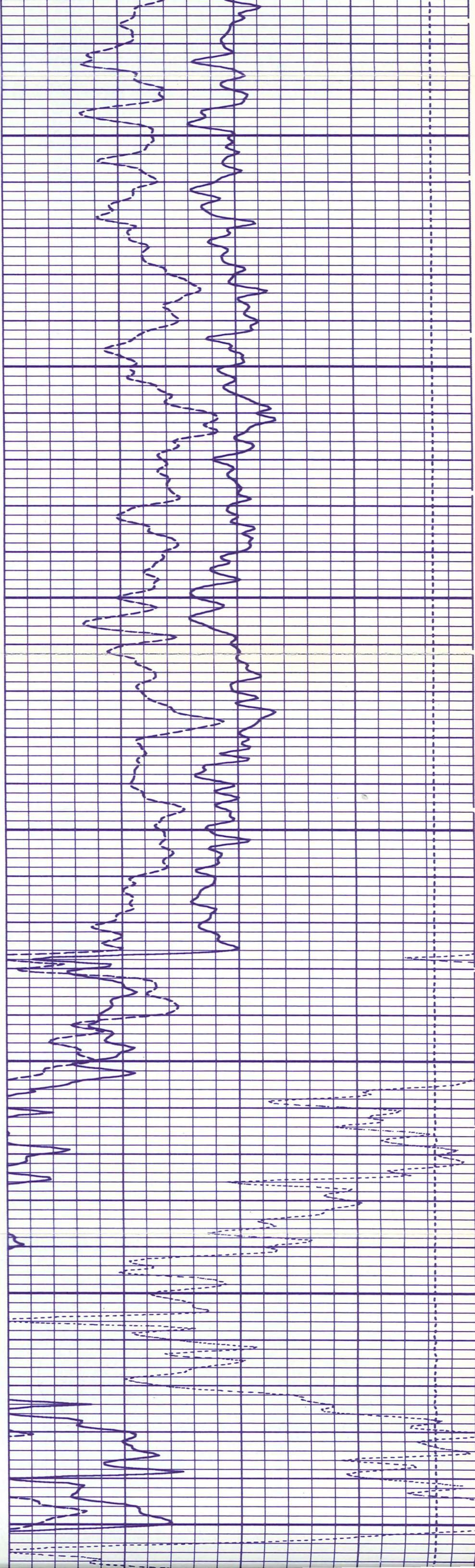


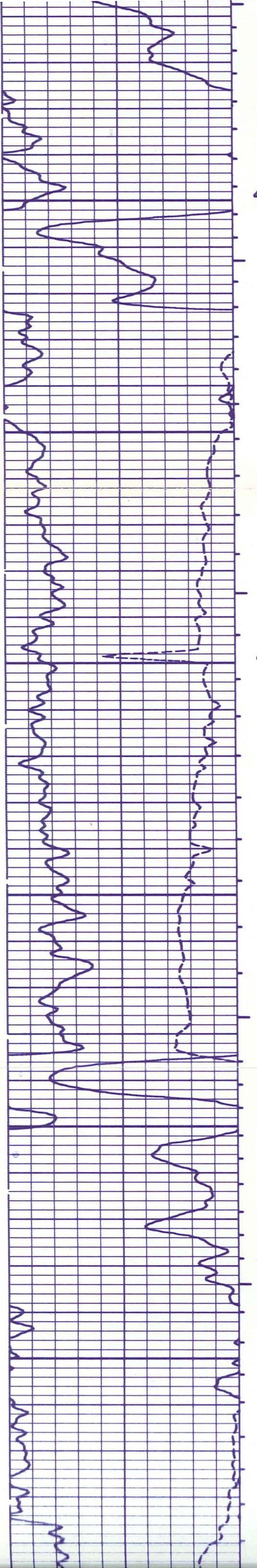
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4100

4200

4300

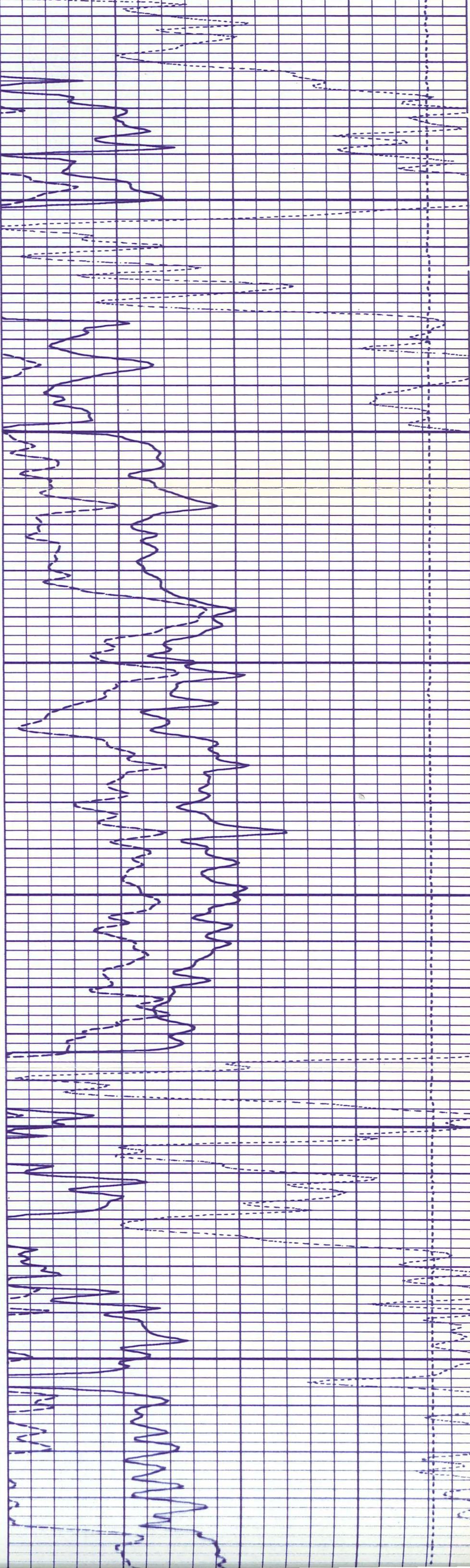


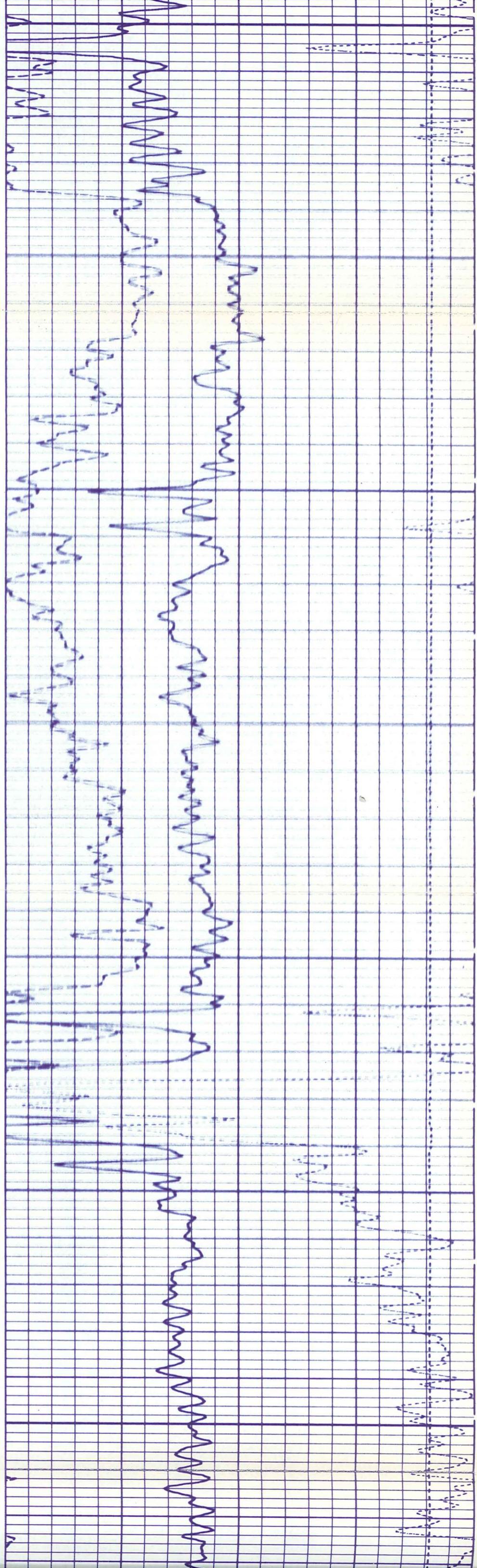
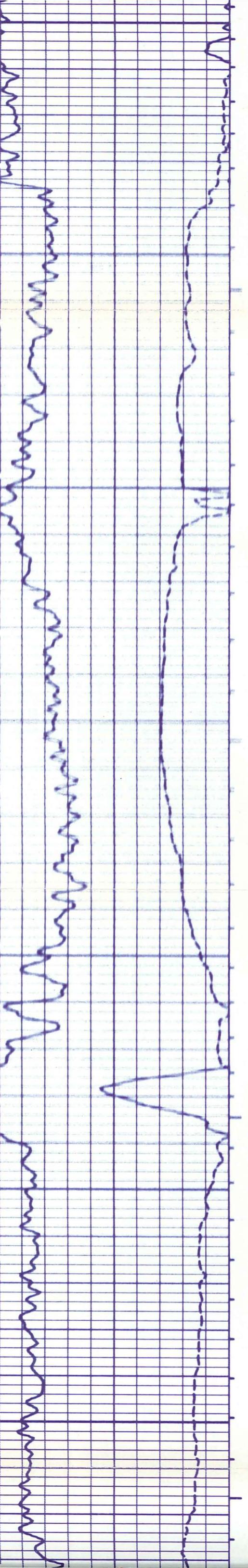


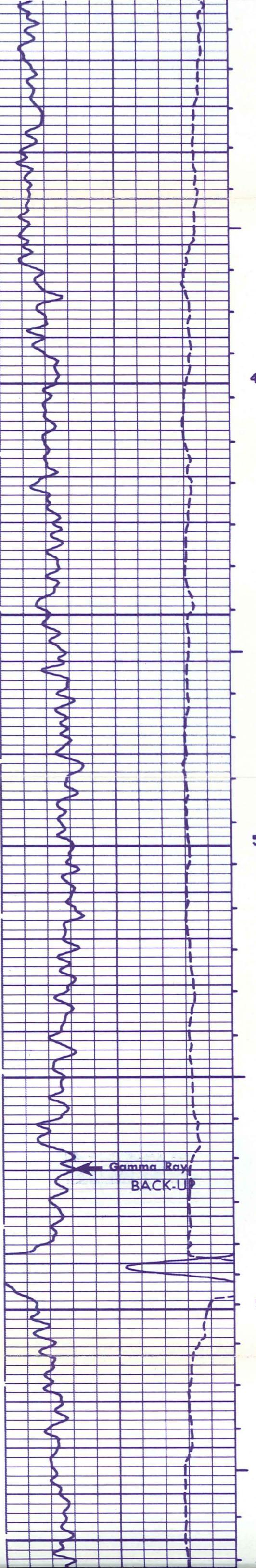
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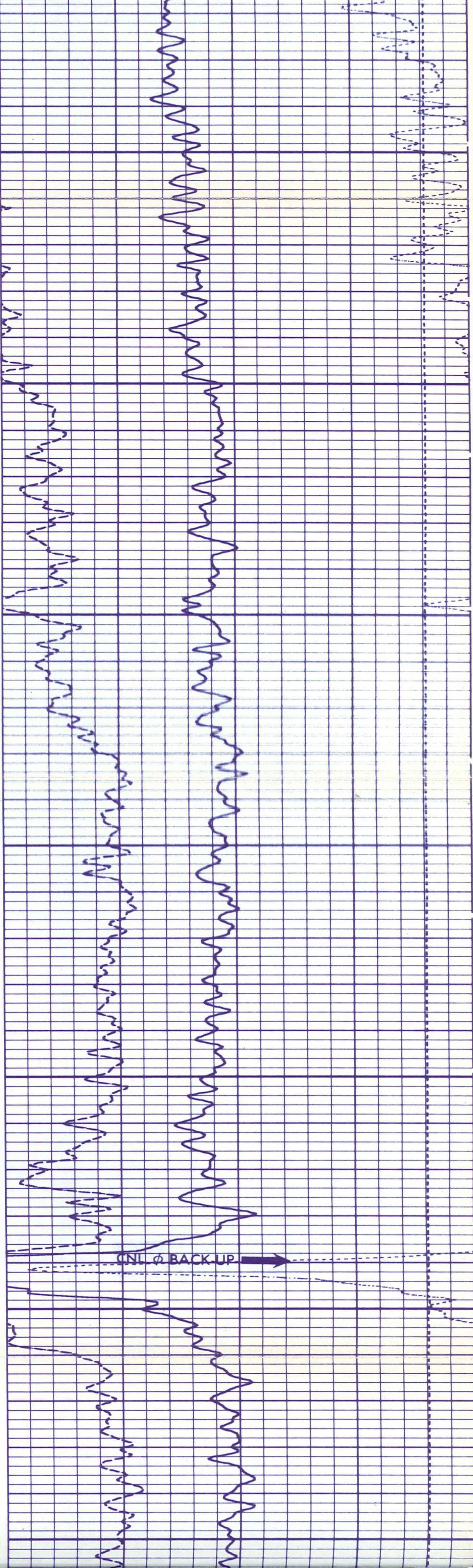


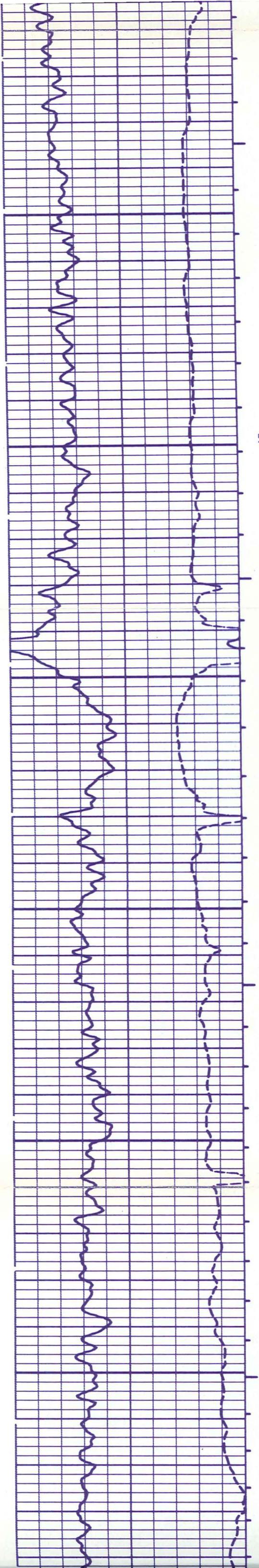


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5100

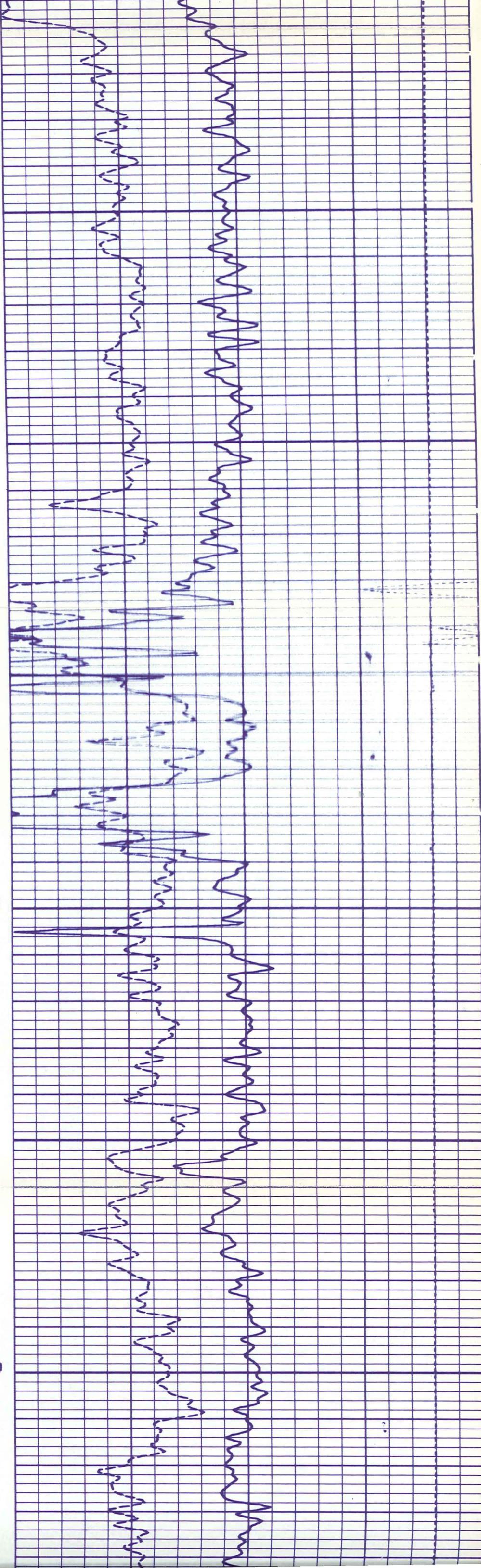


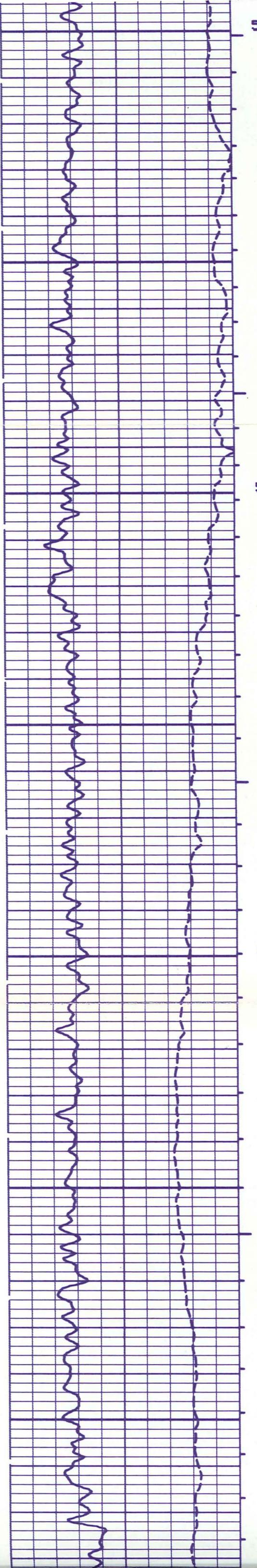


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5400



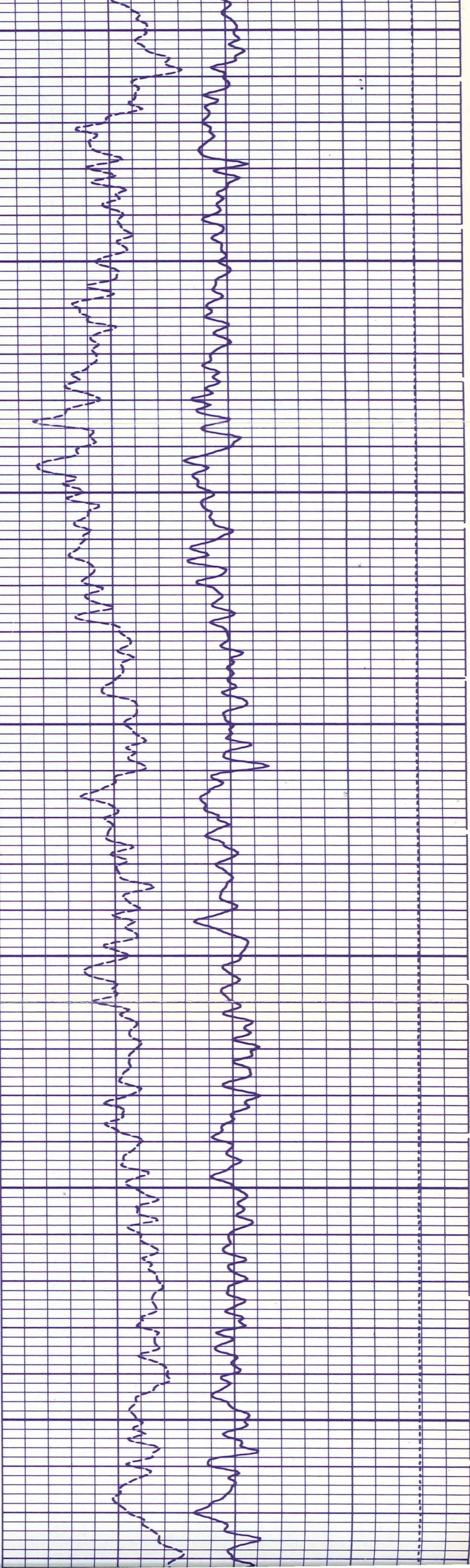


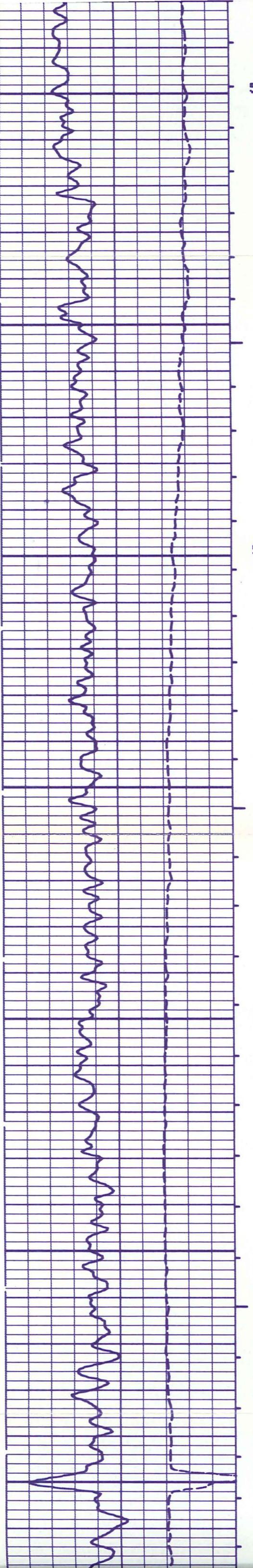
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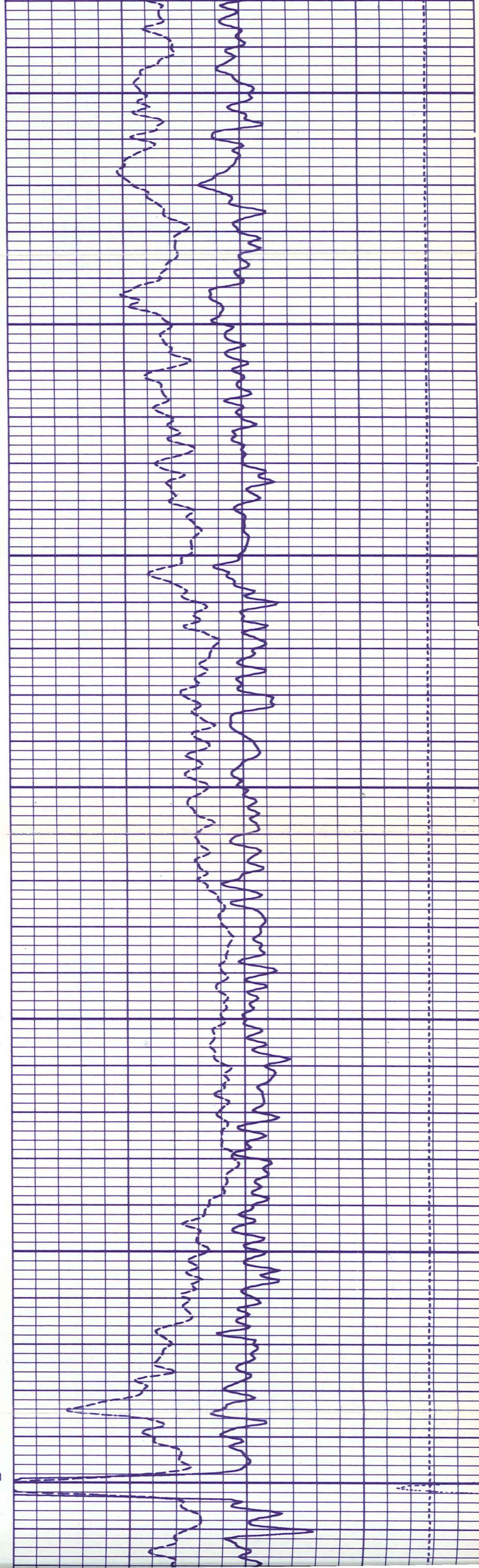


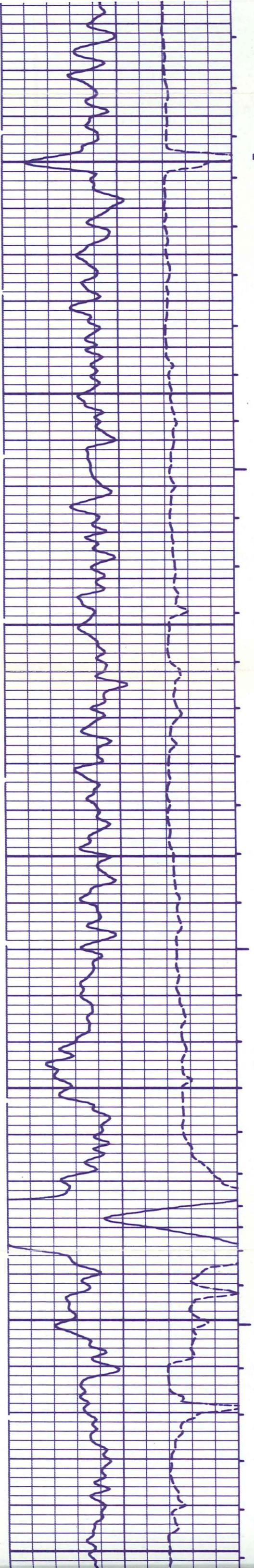
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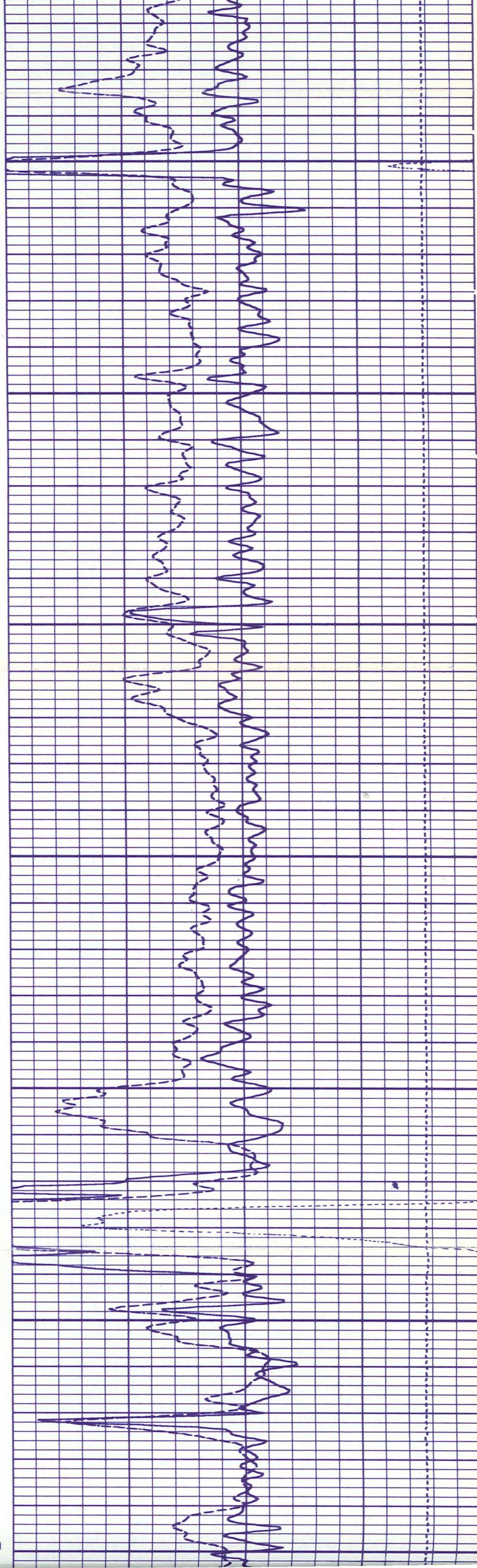


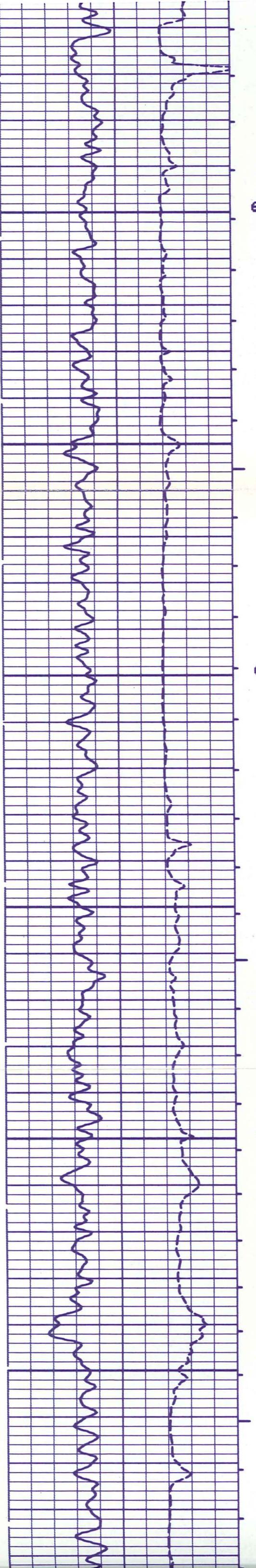
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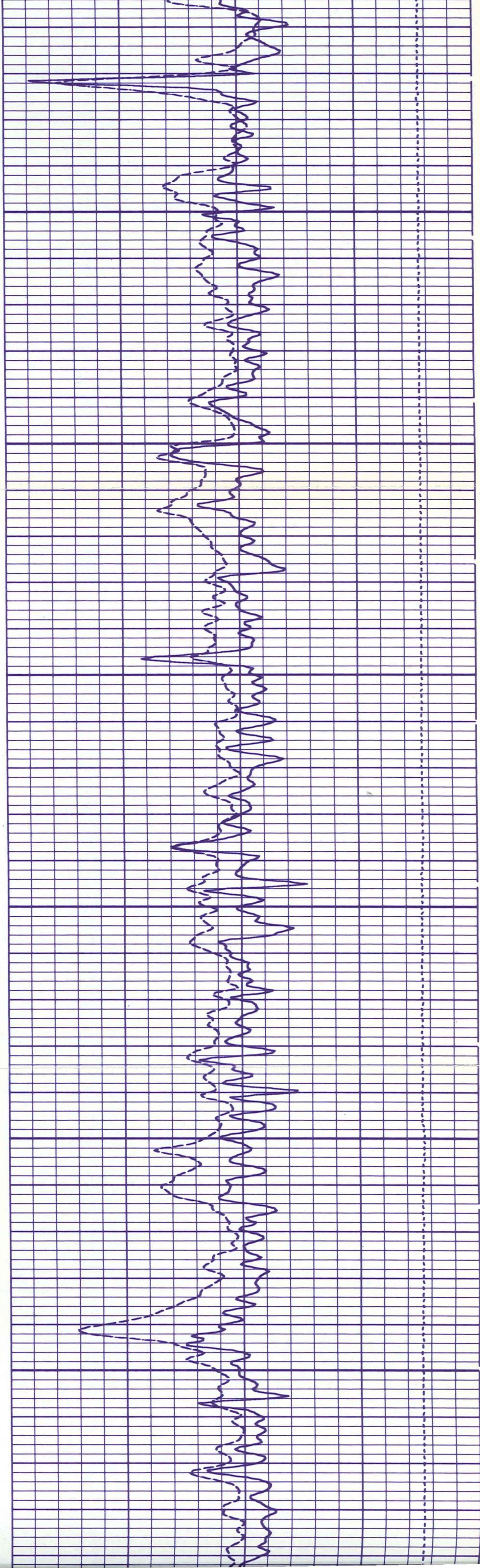


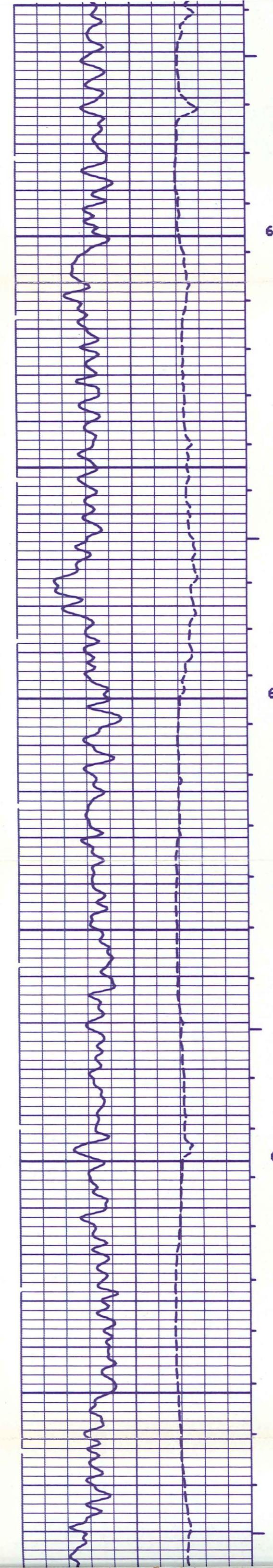


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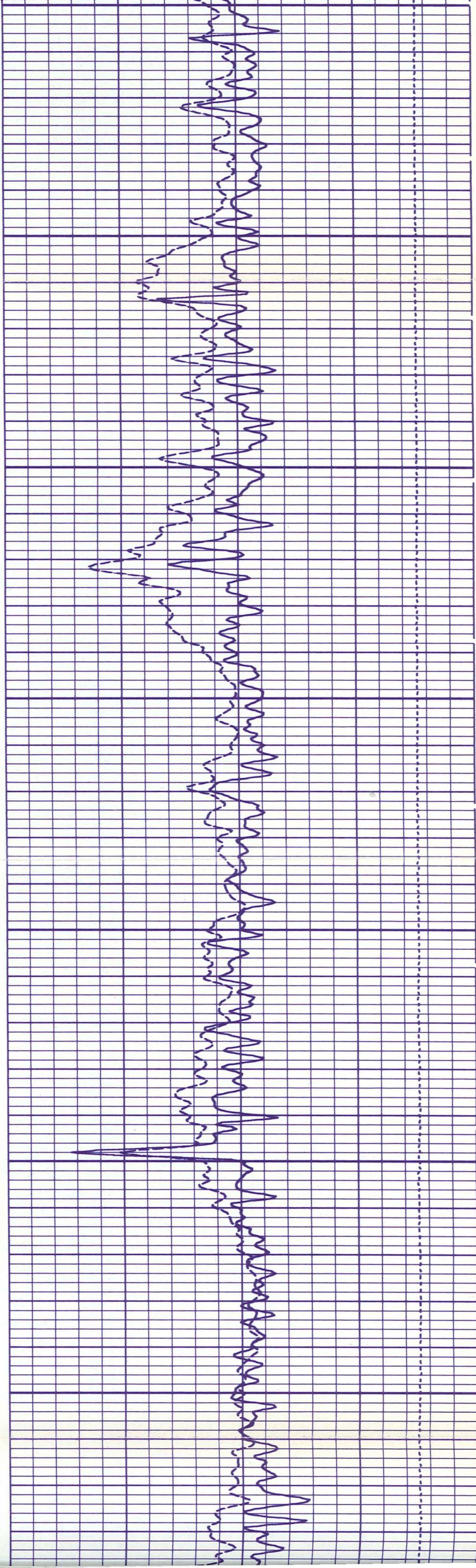


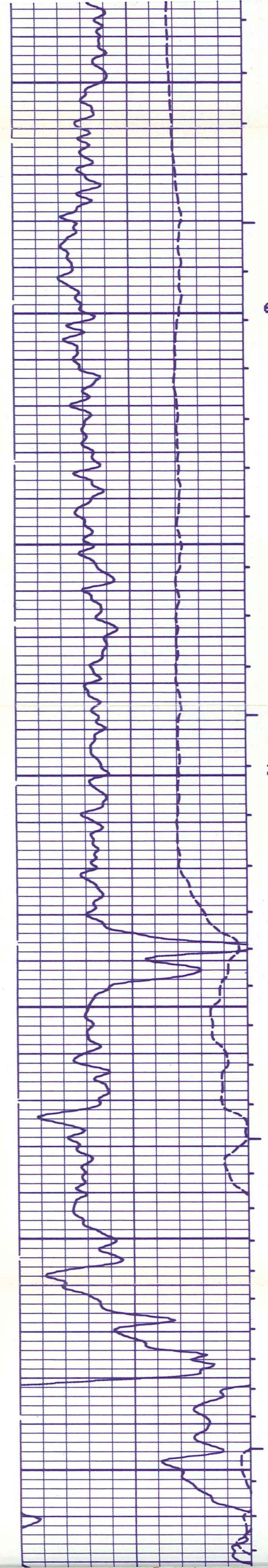


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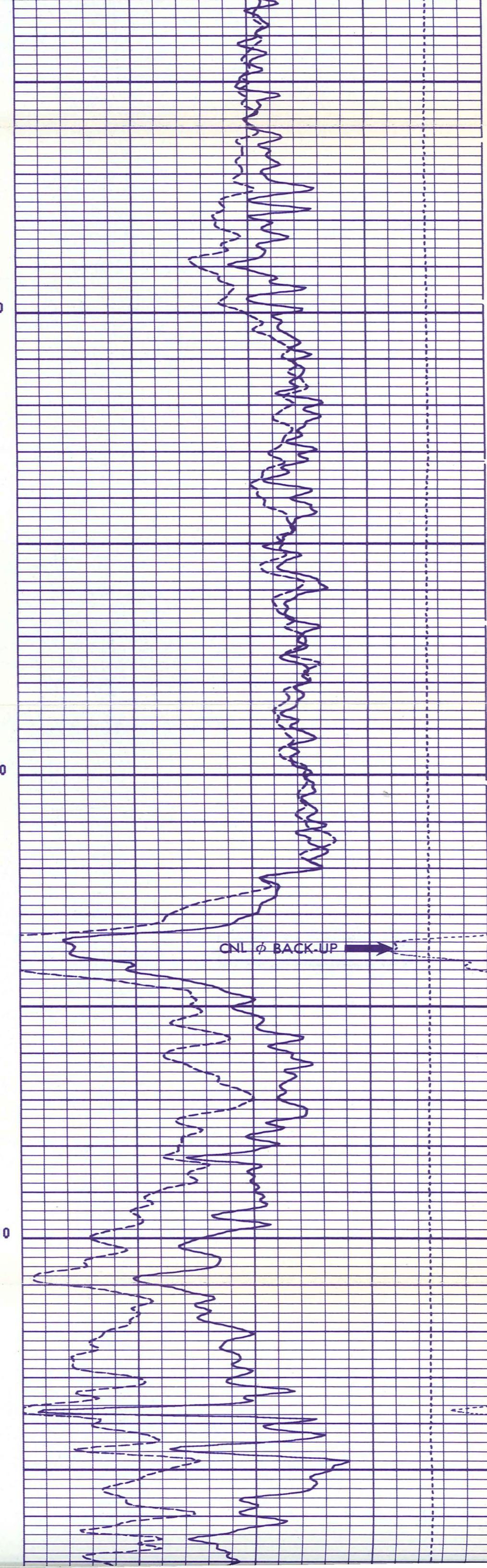


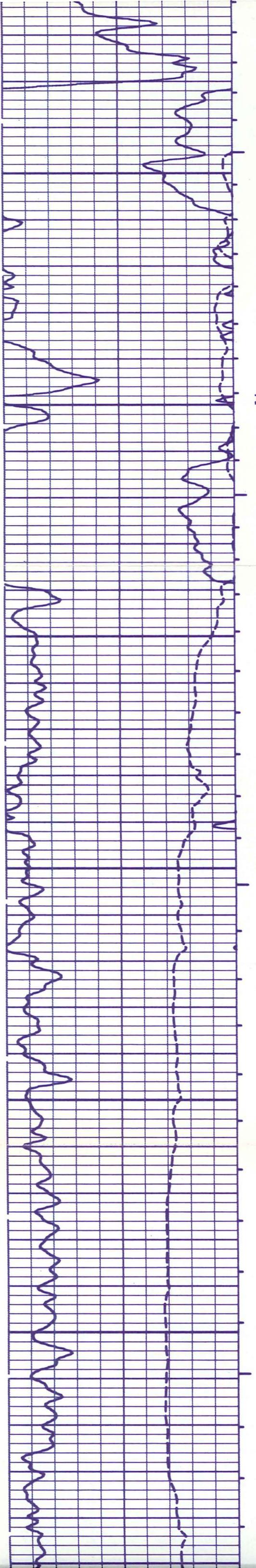


6900

7000

7100

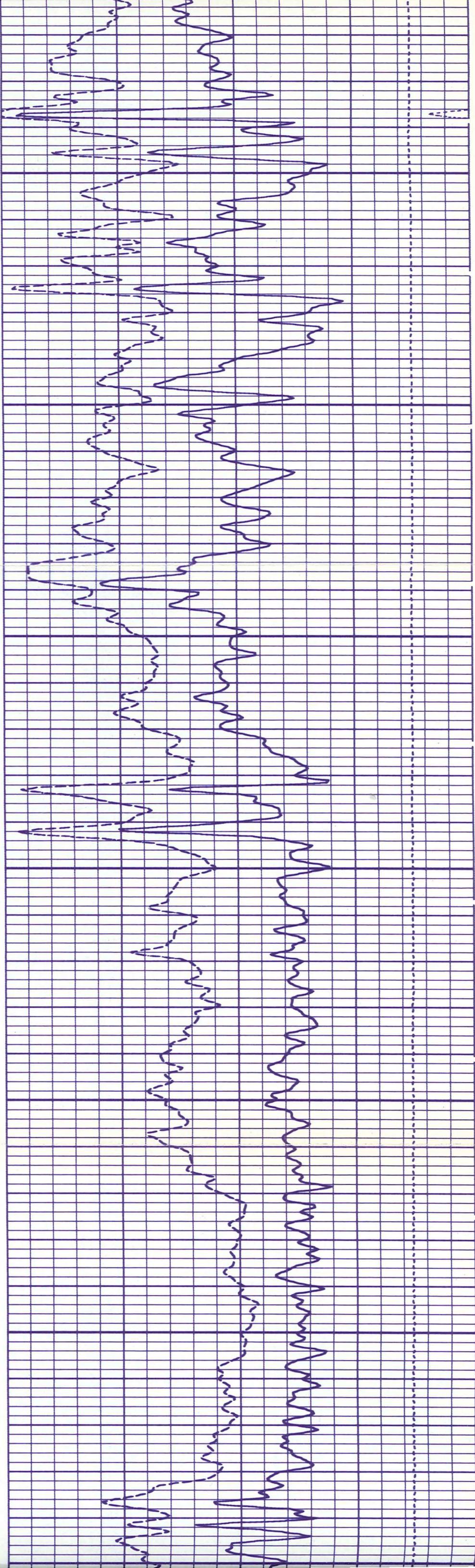


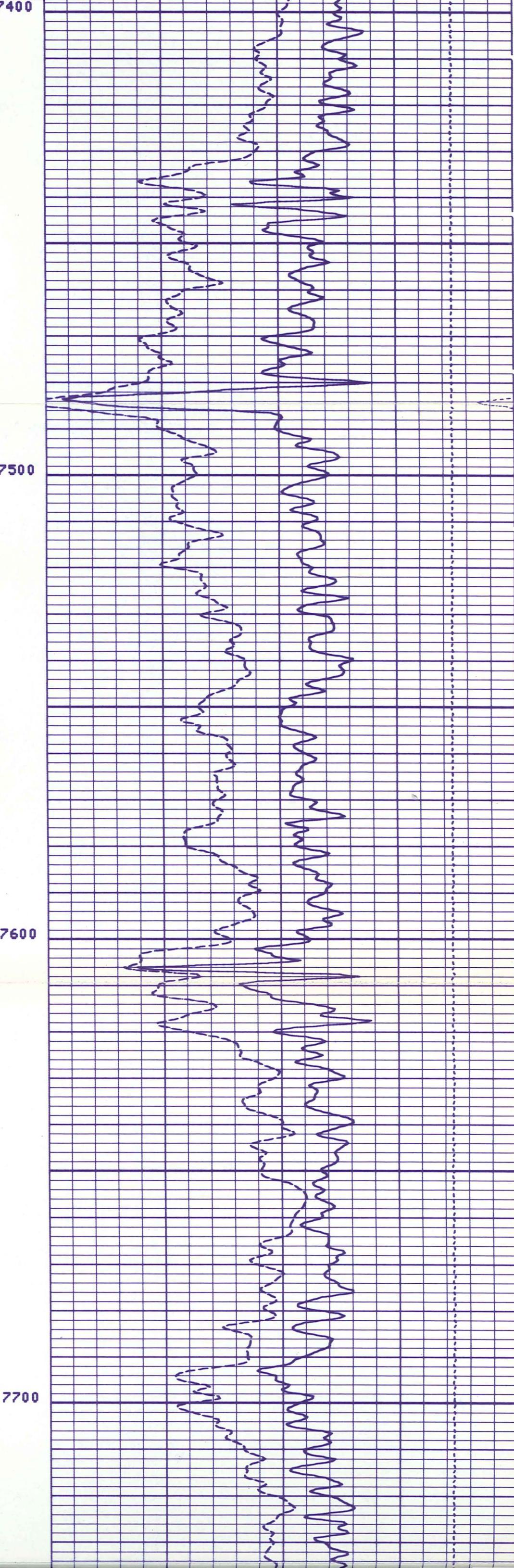
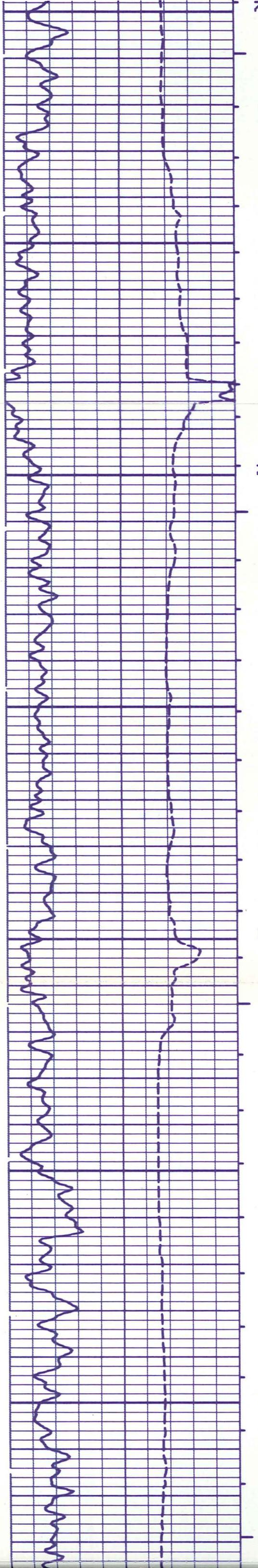


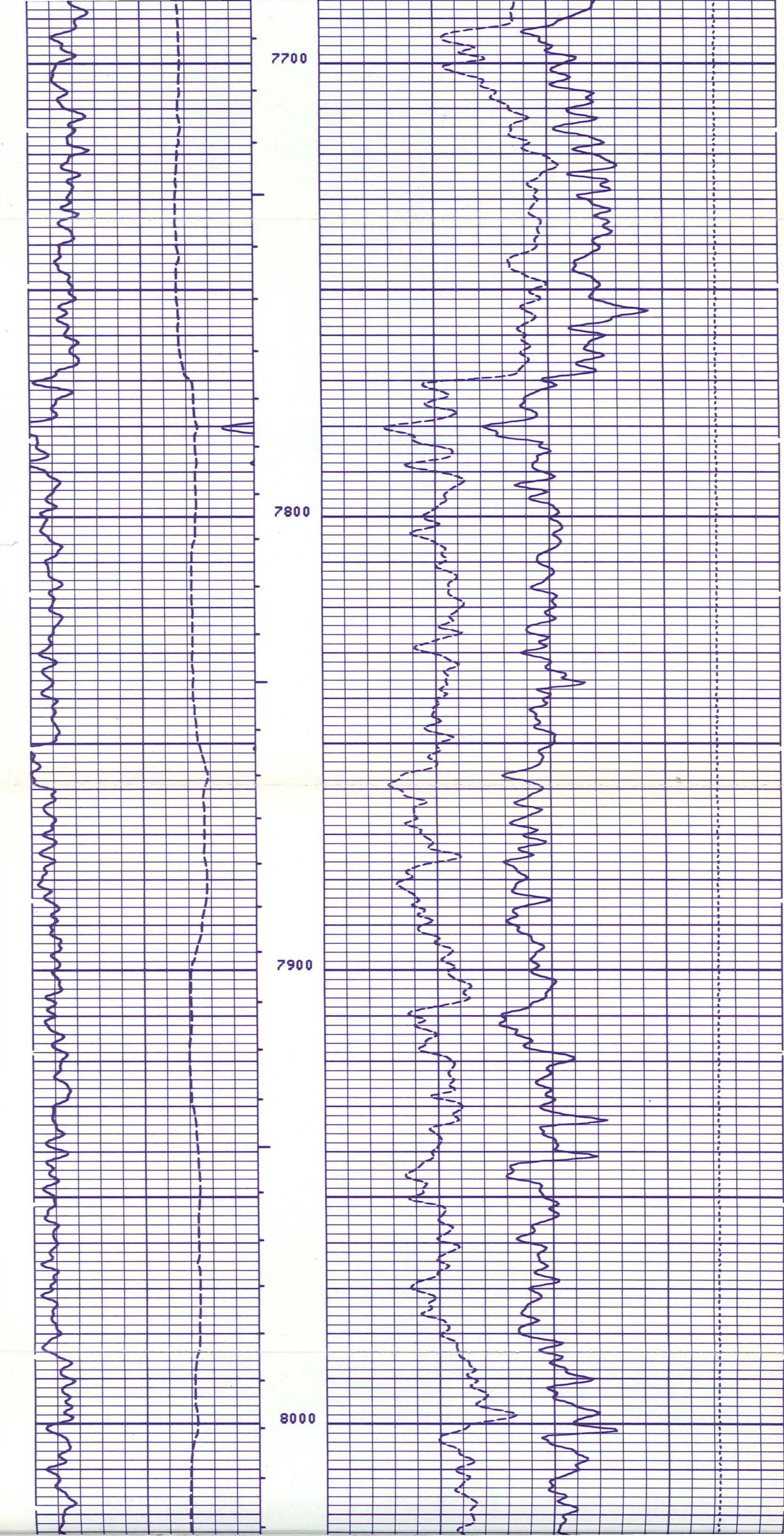
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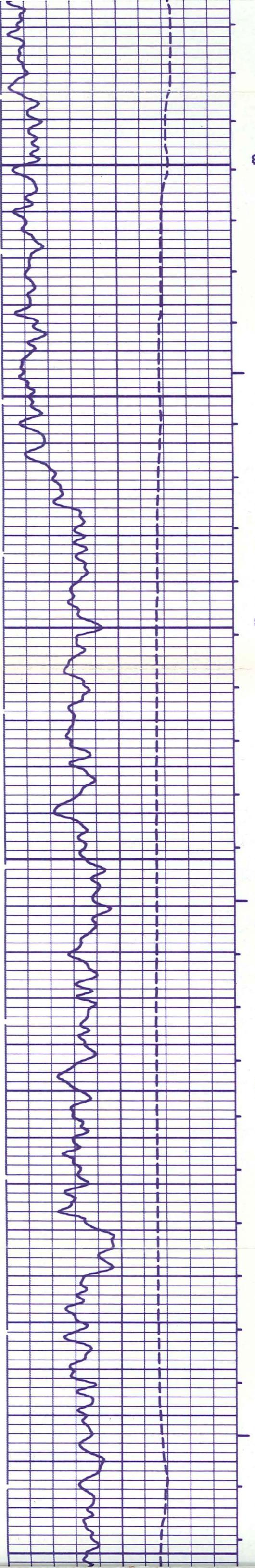
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7400

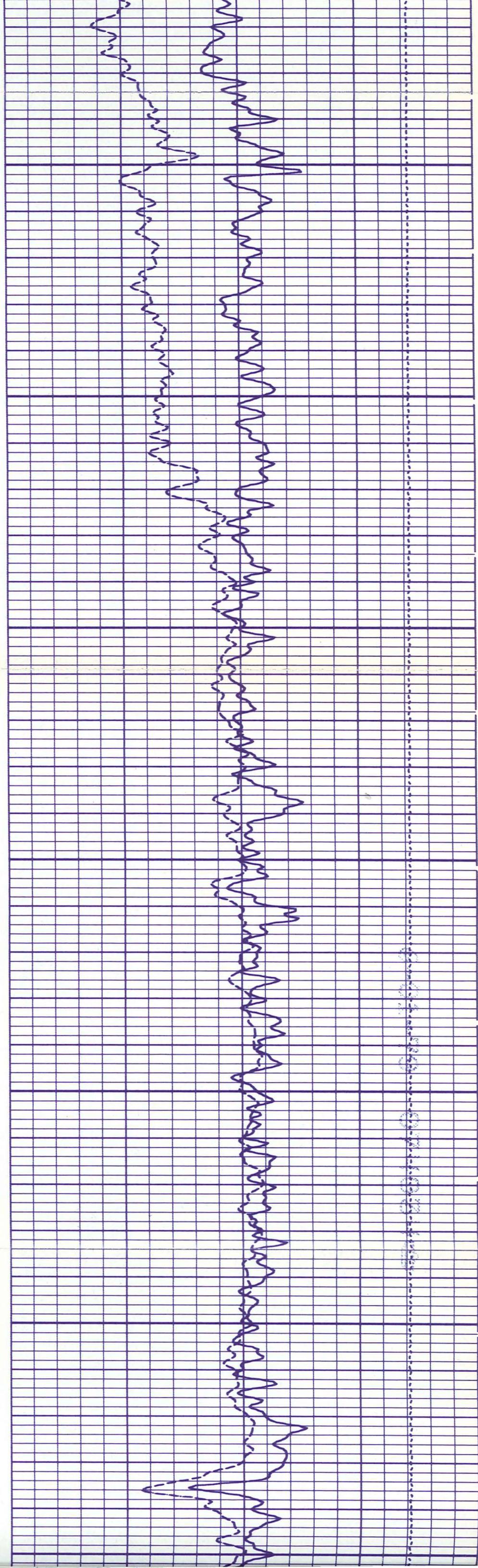




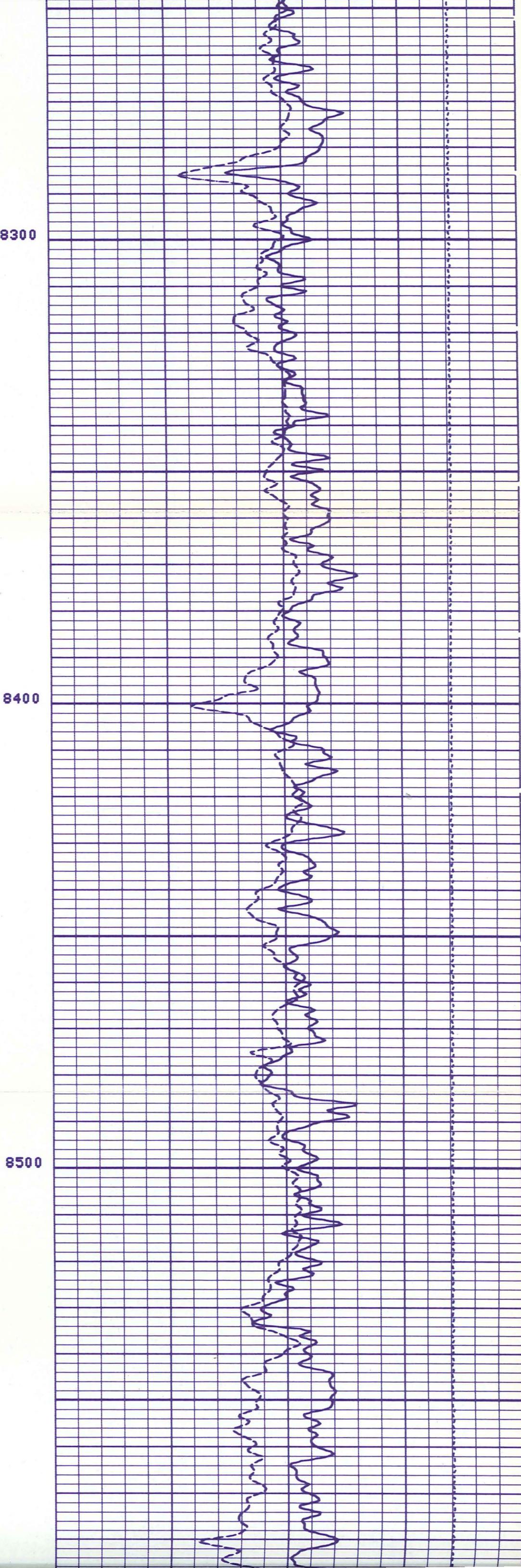
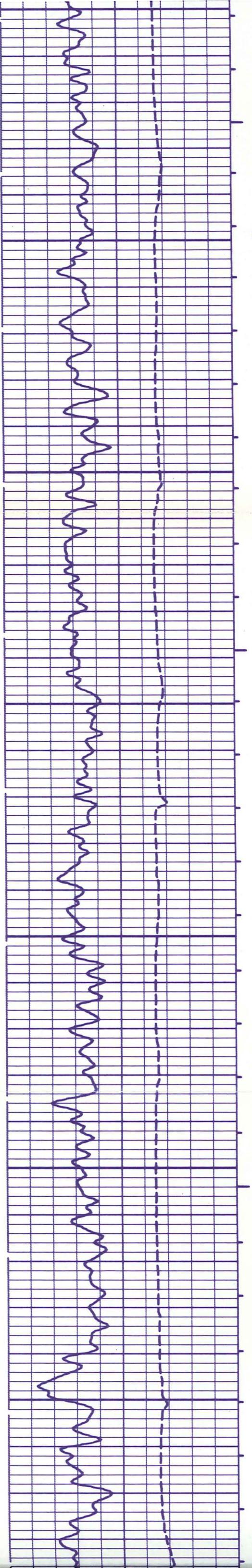


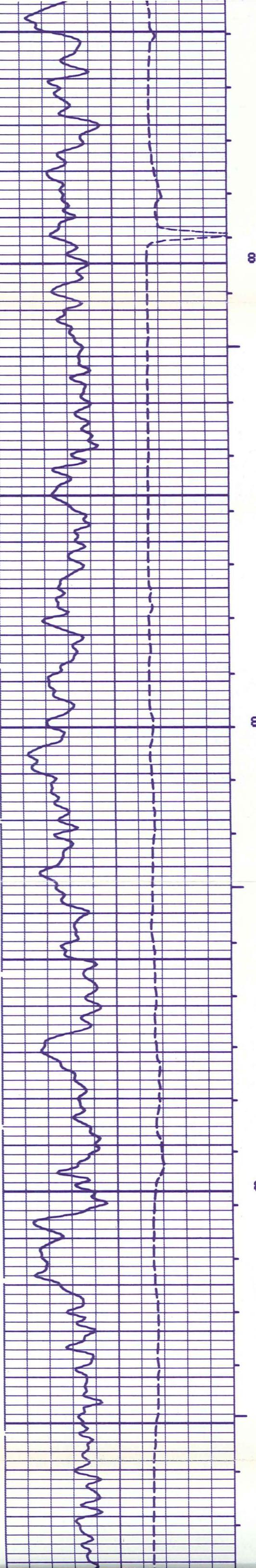


8000
8100
8200
8300



8000
8100
8200
8300

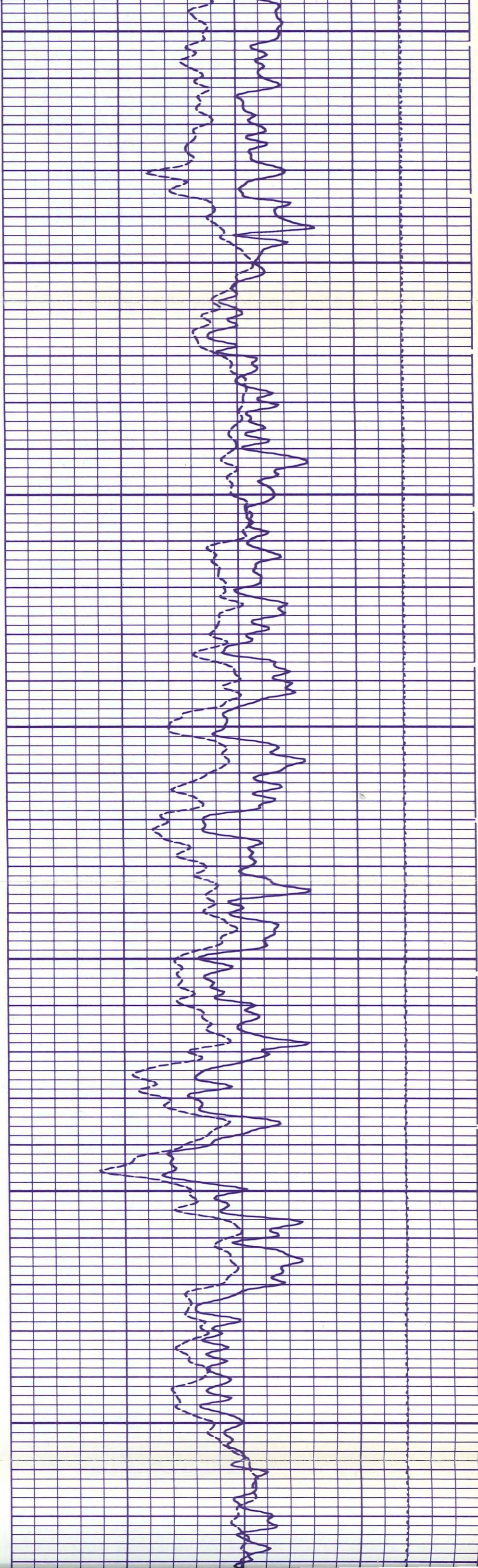


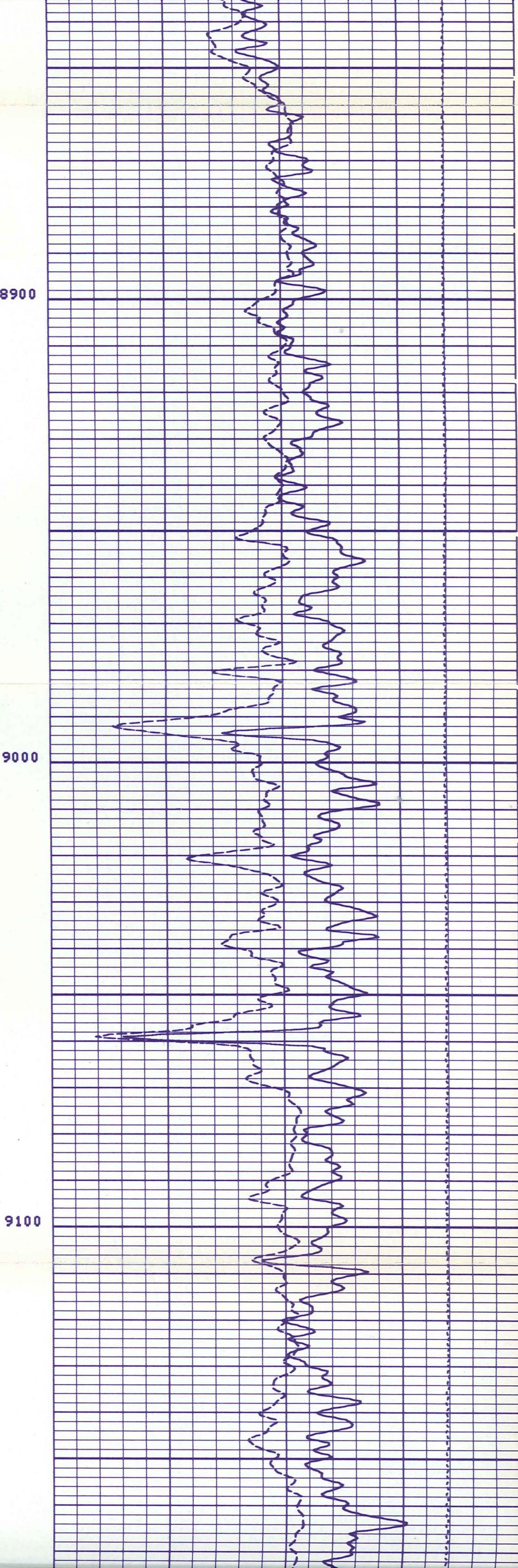
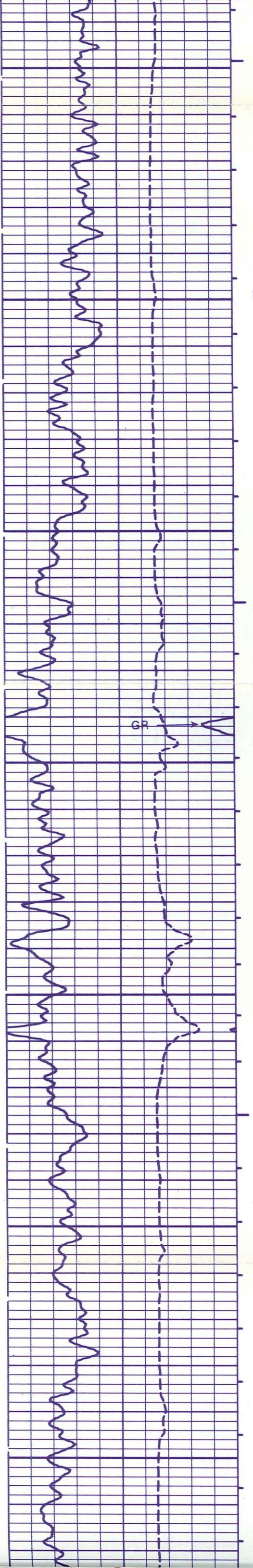


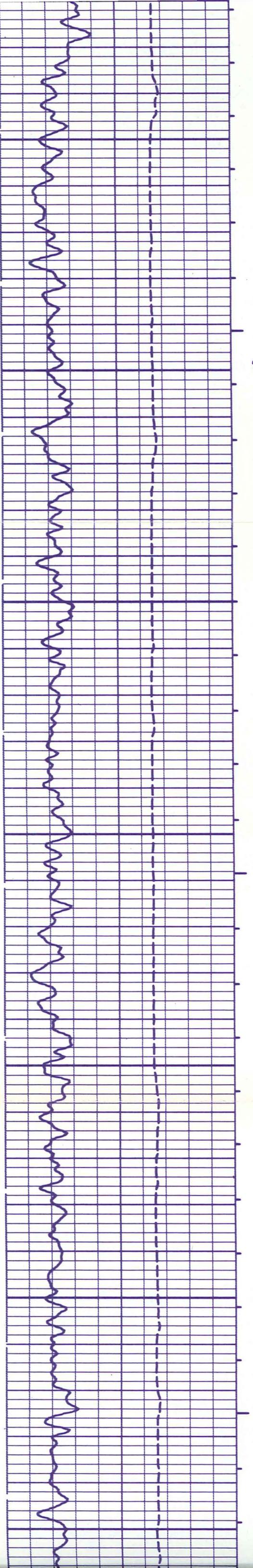
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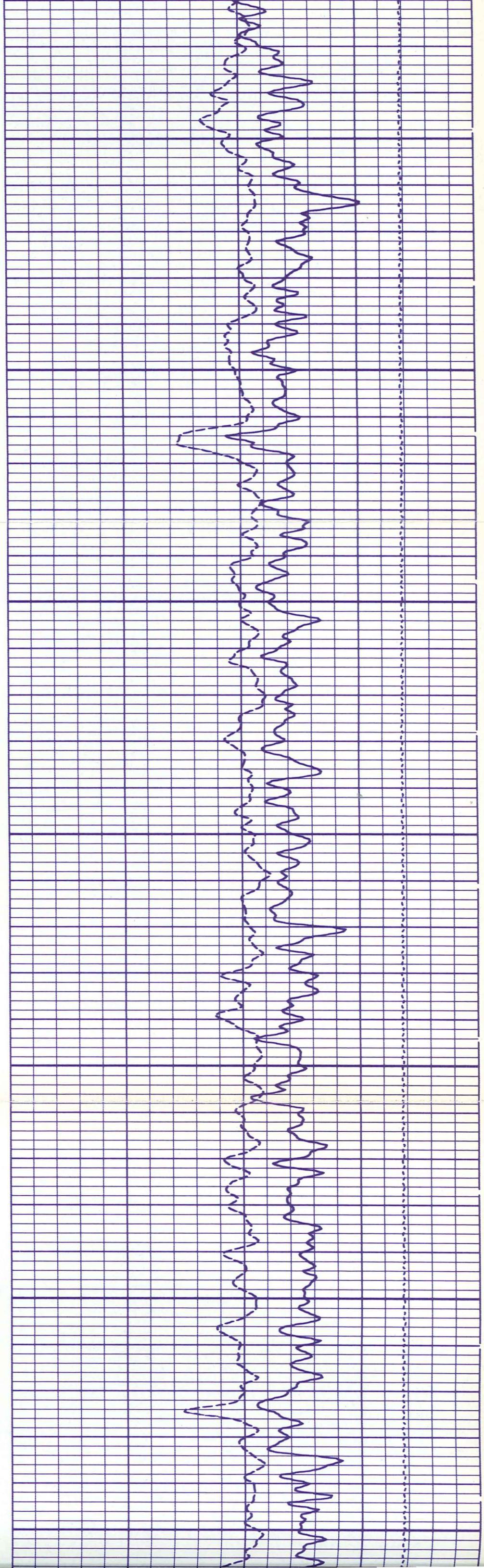


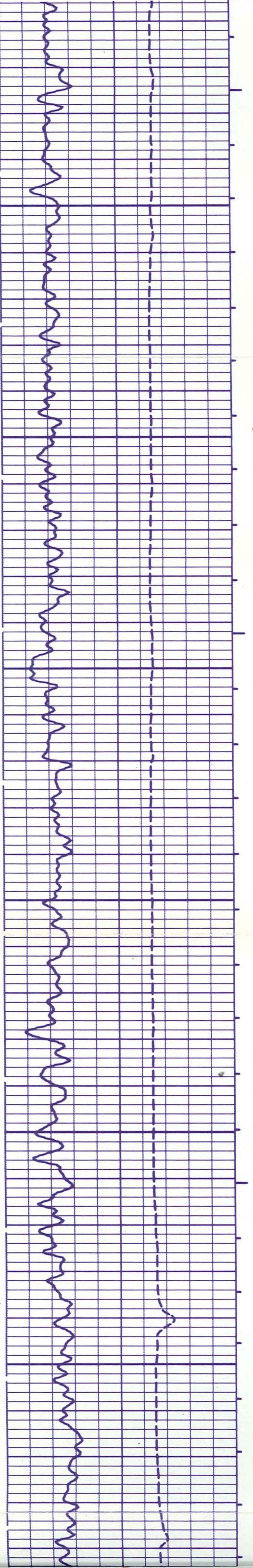


9200

9300

9400

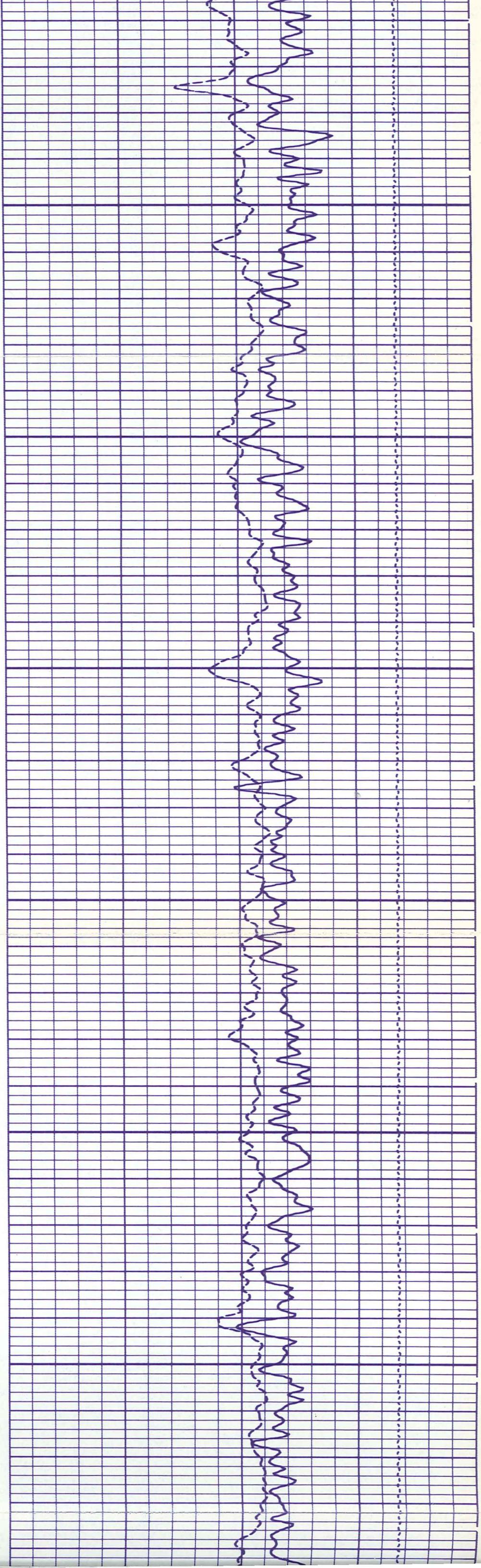


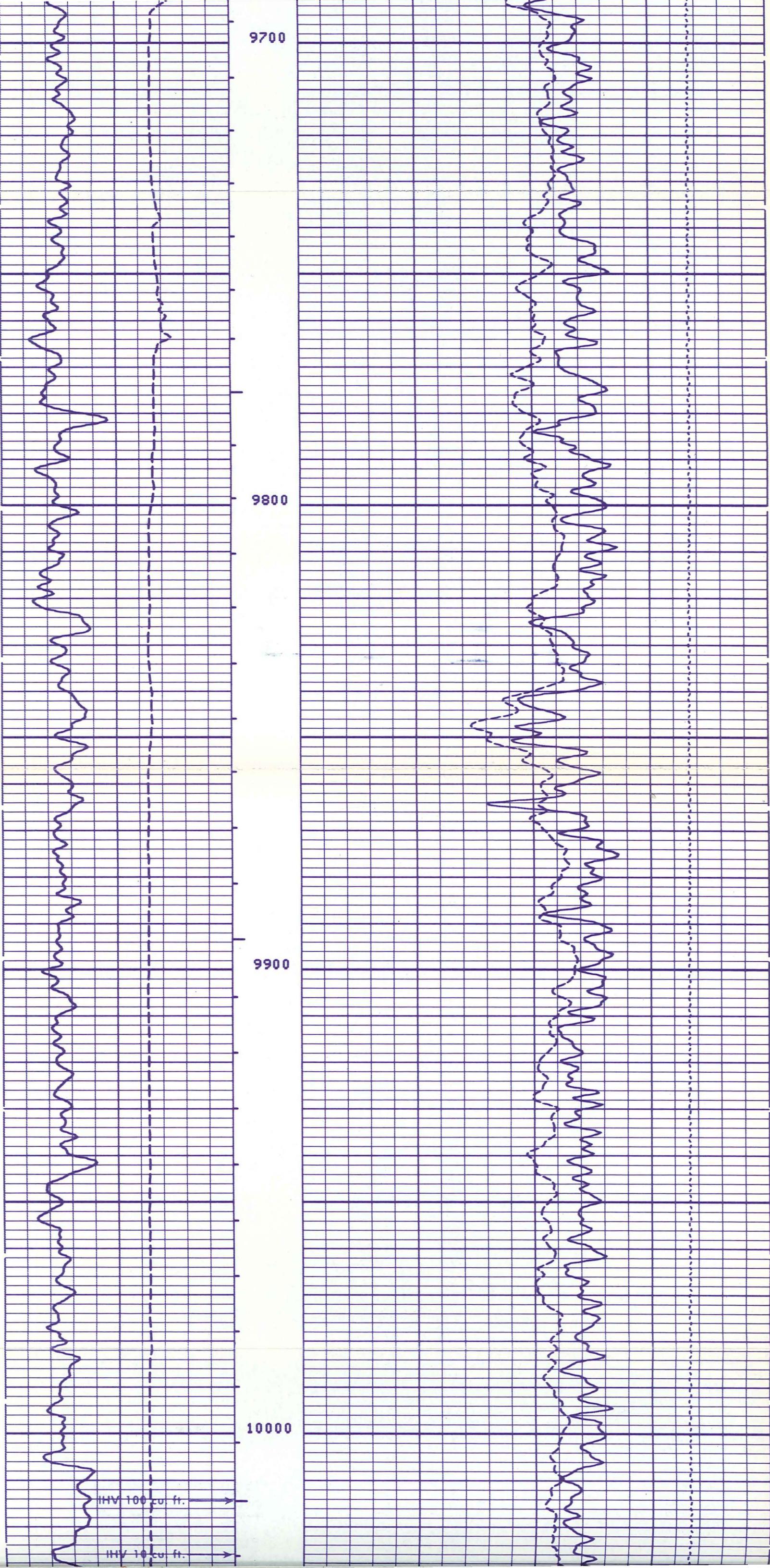


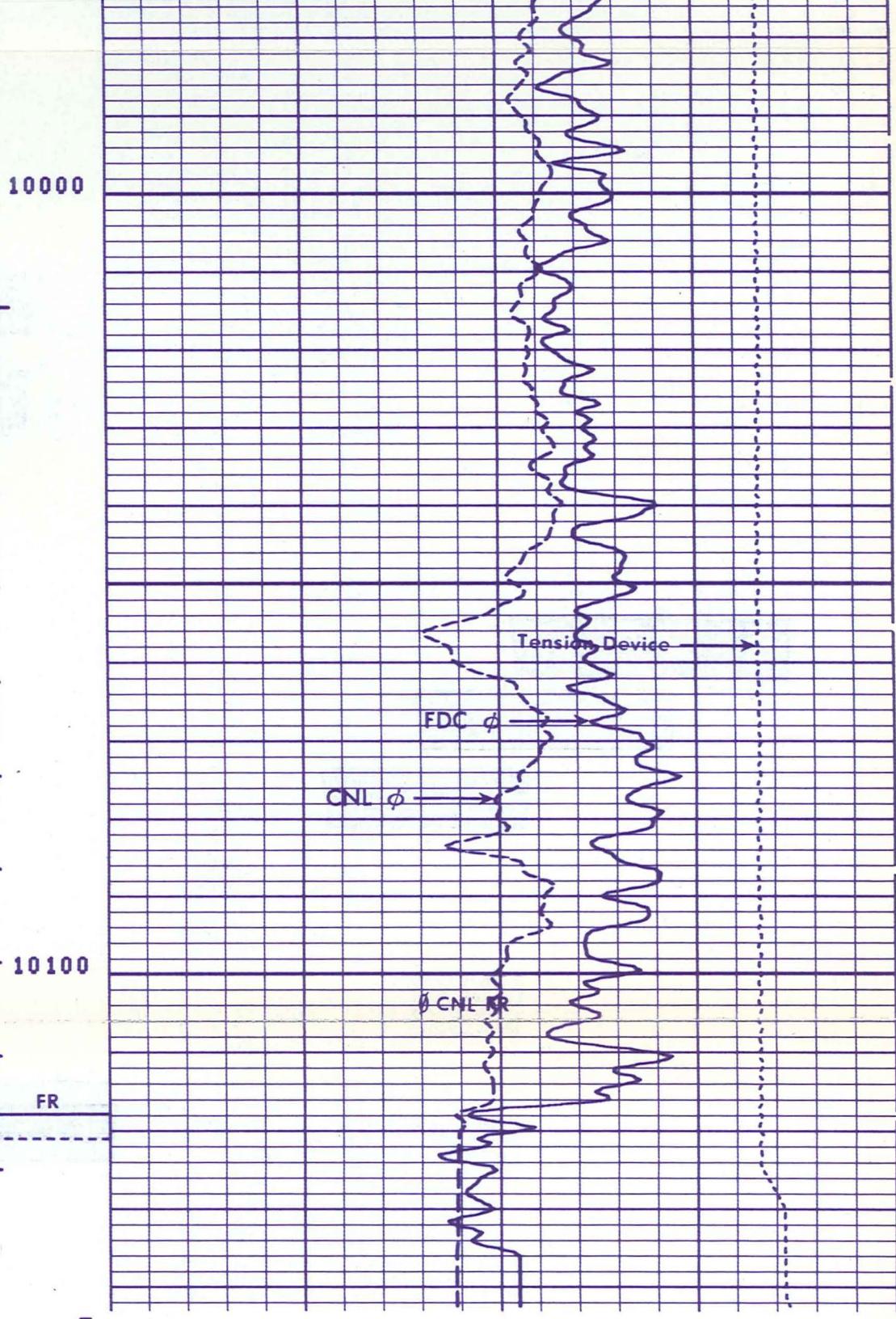
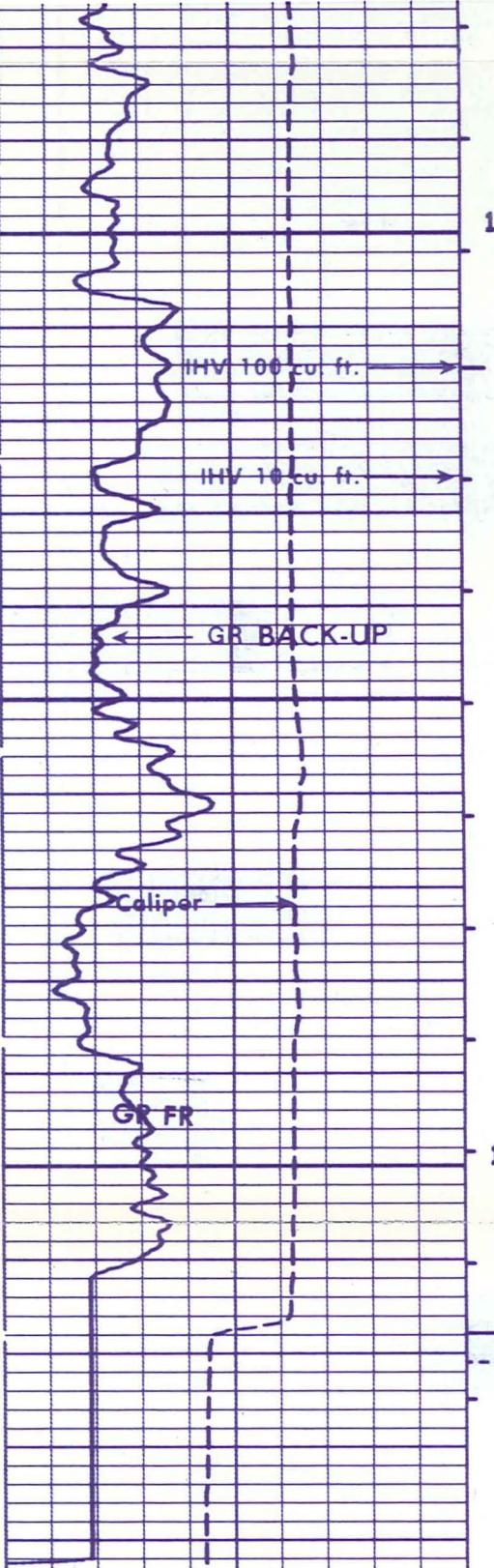
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9600

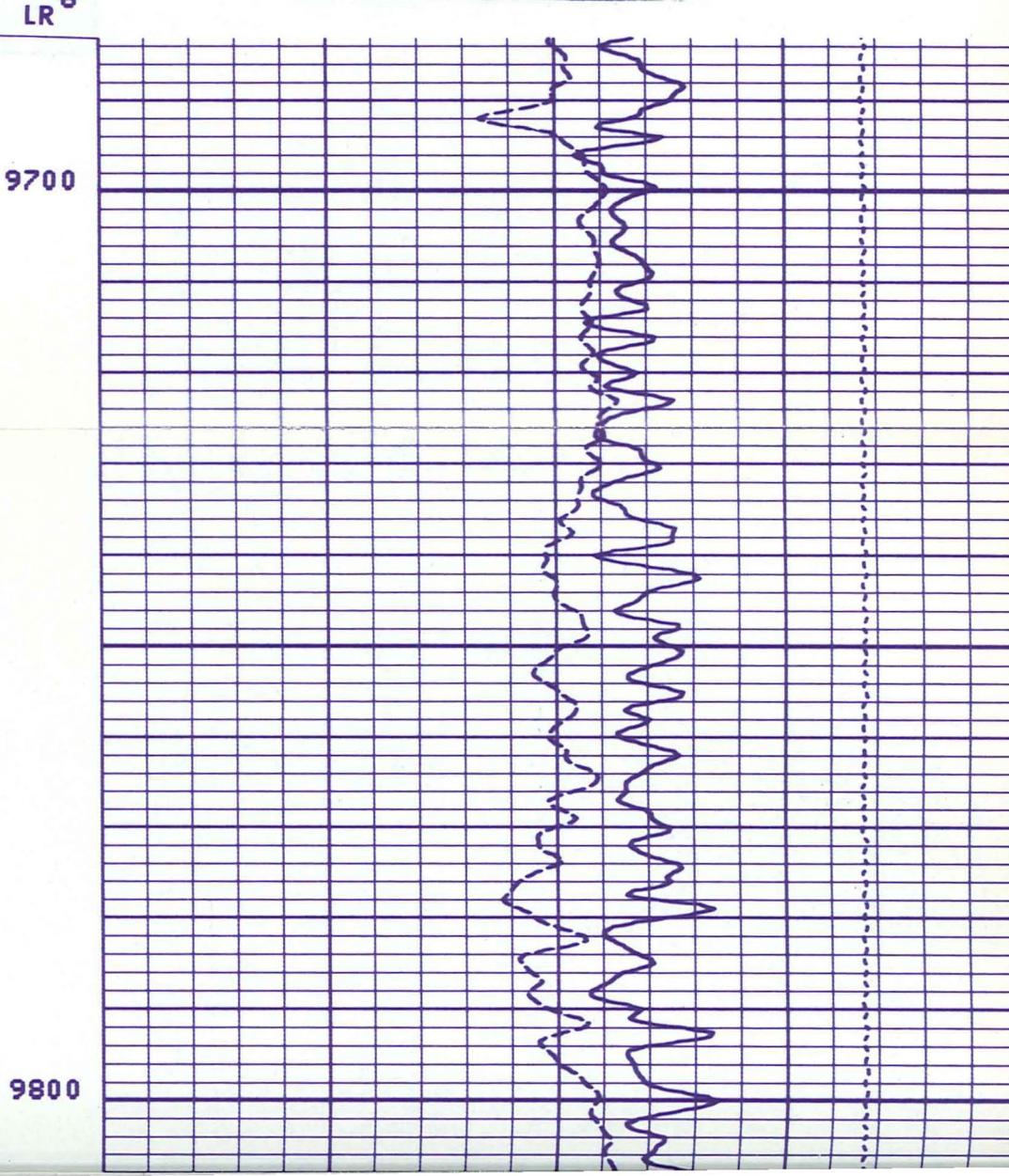
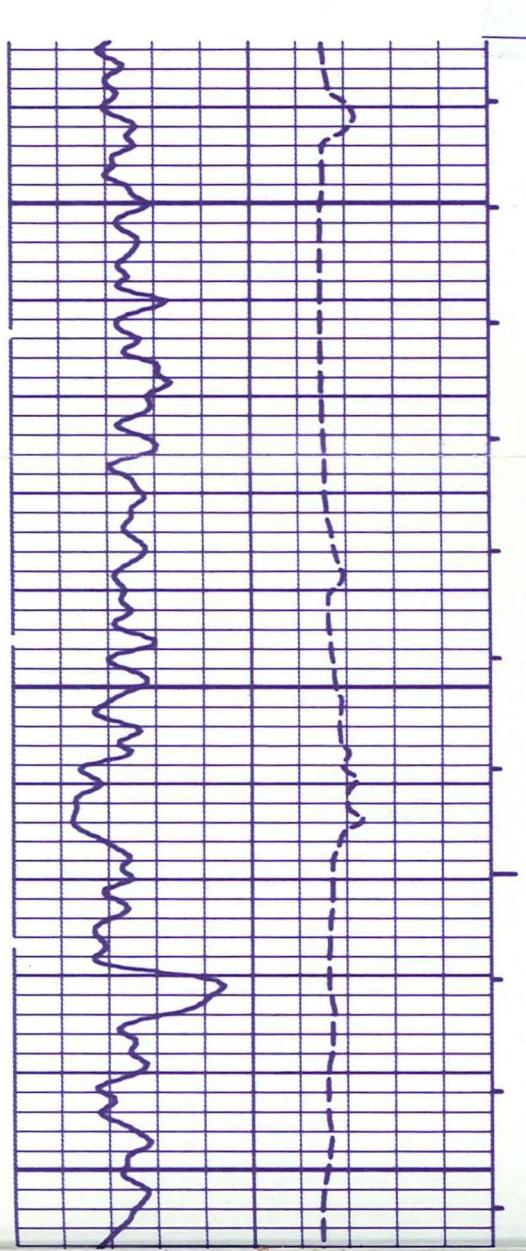
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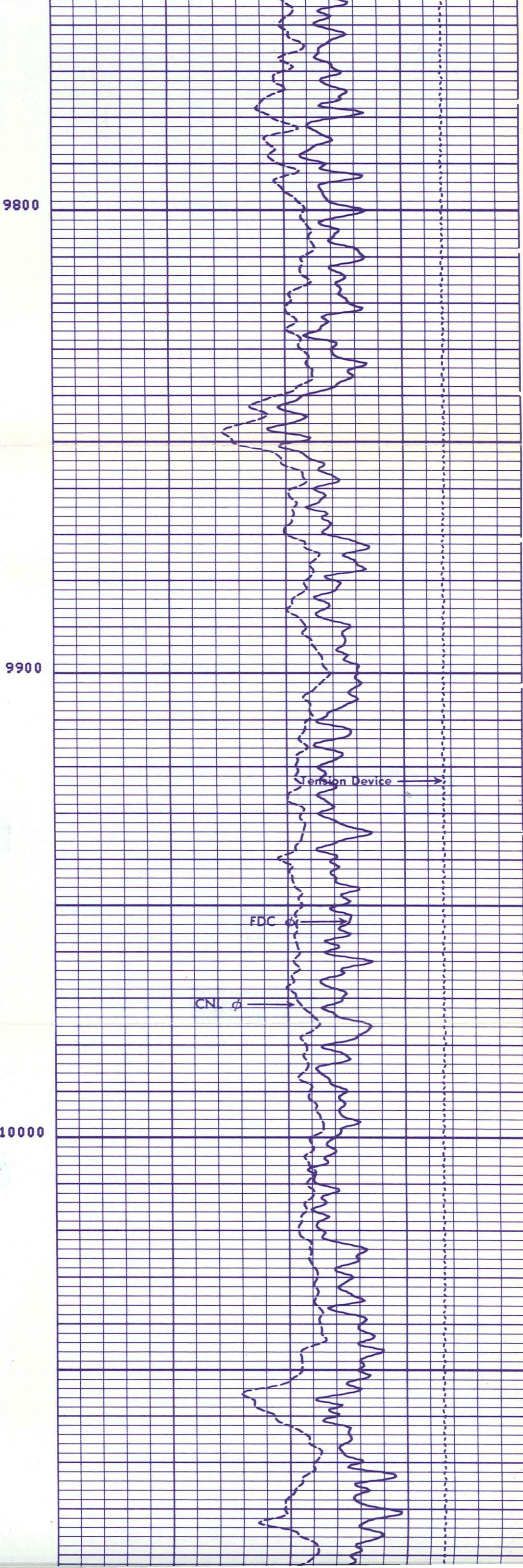
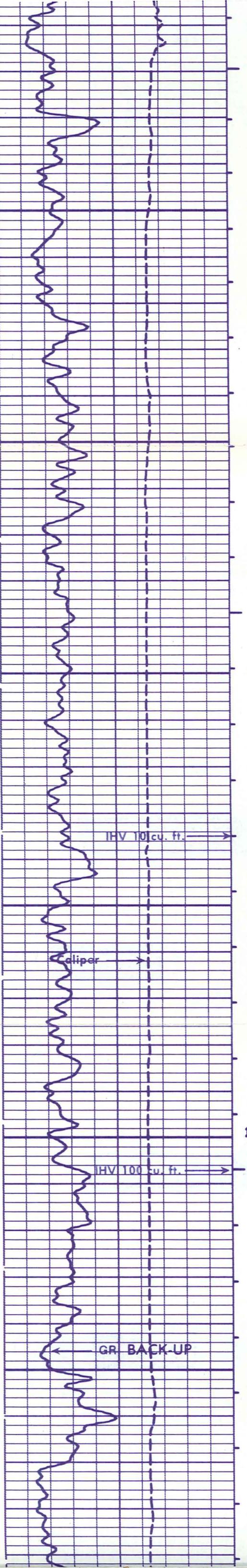


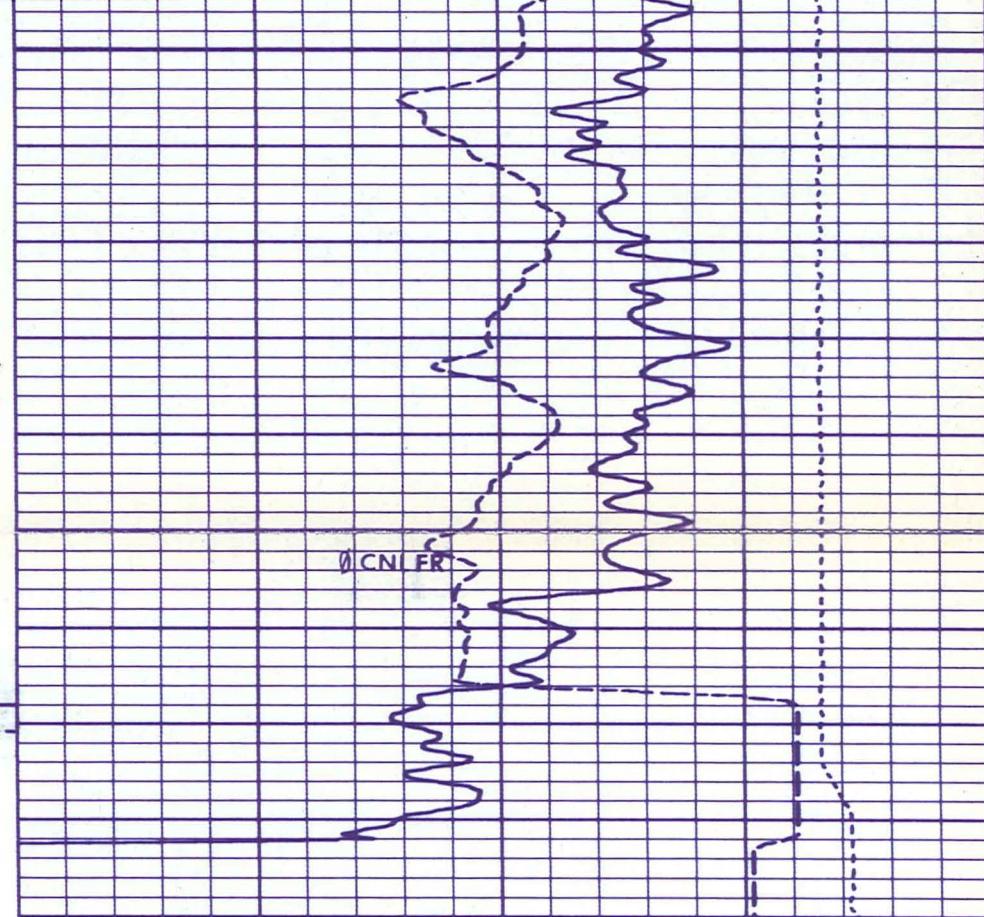
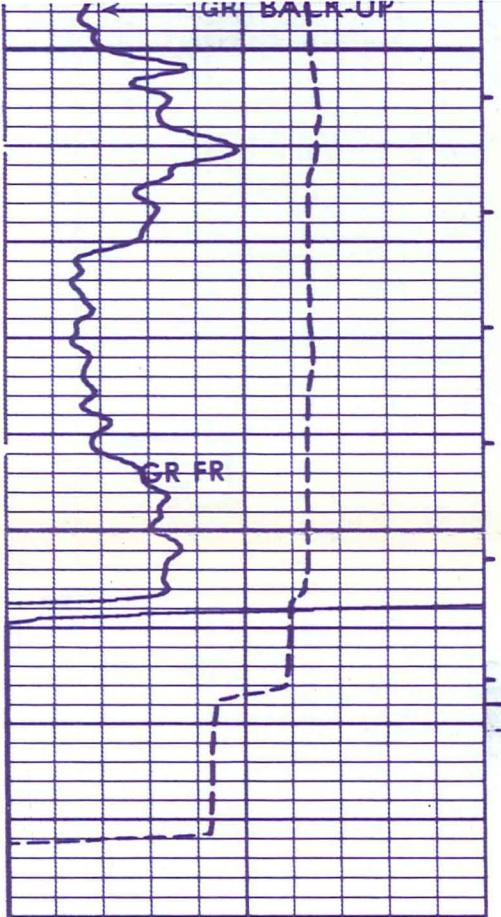




REPEAT SECTION







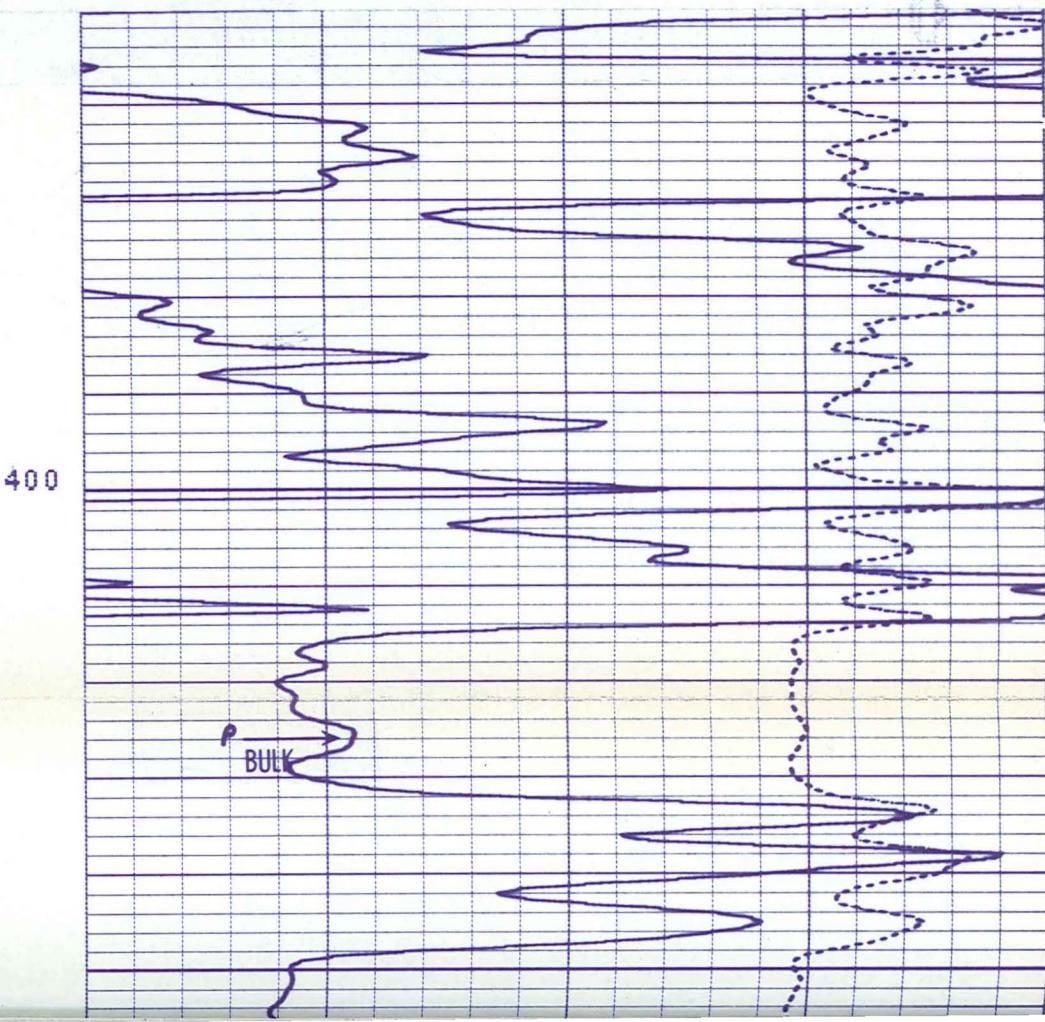
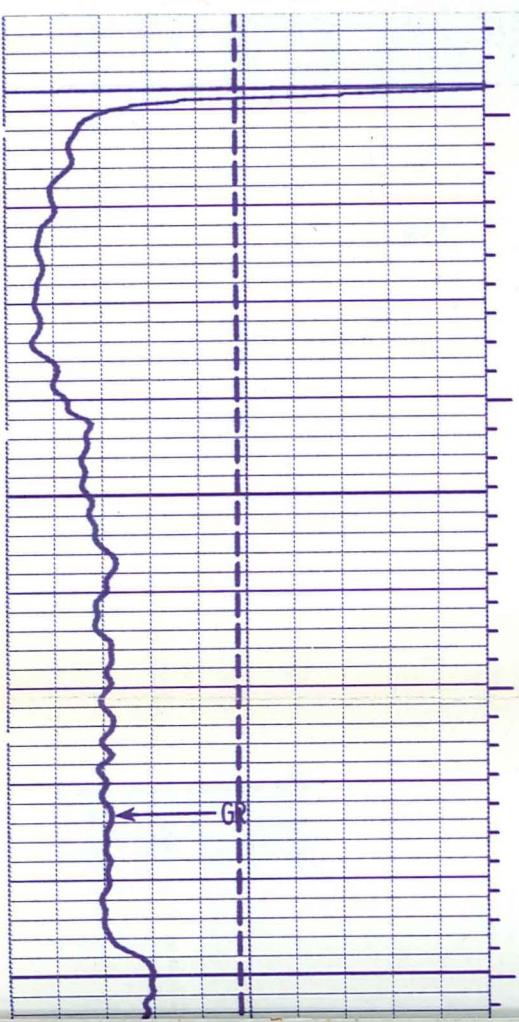
REPEAT SECTION

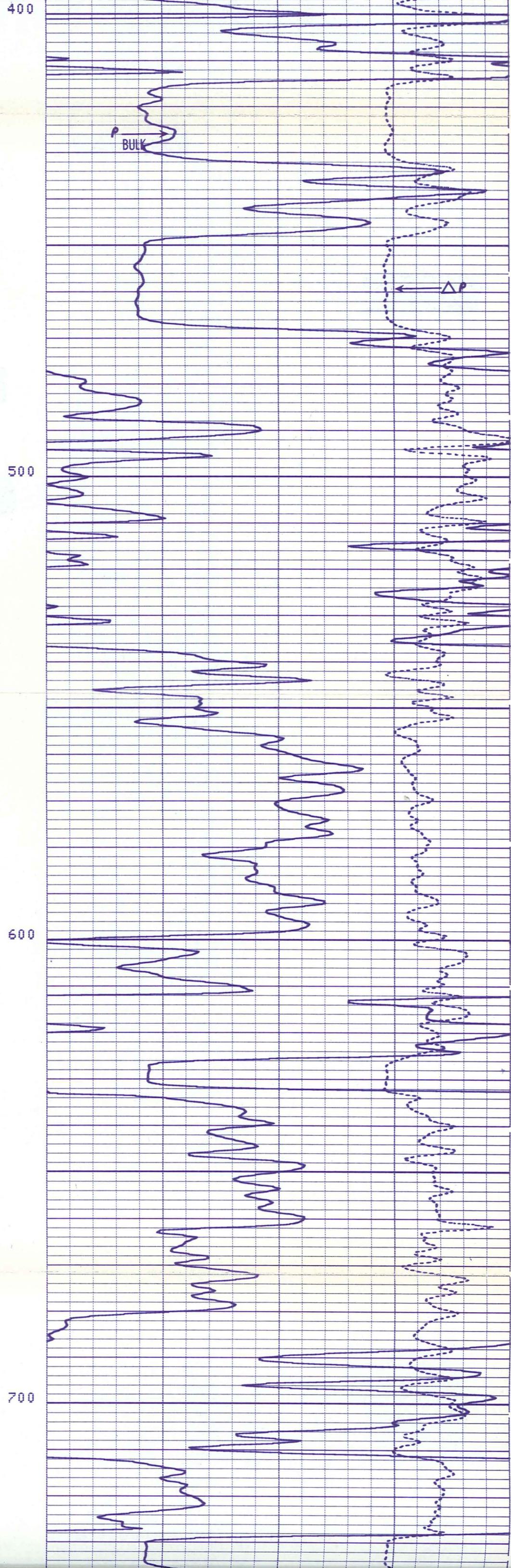
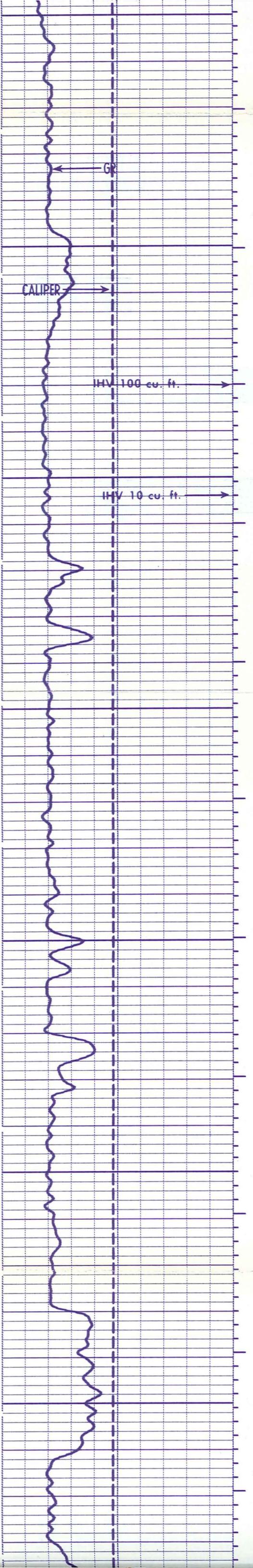
CALICIN	
6.000	16.00
GR (GAPI)	150.0

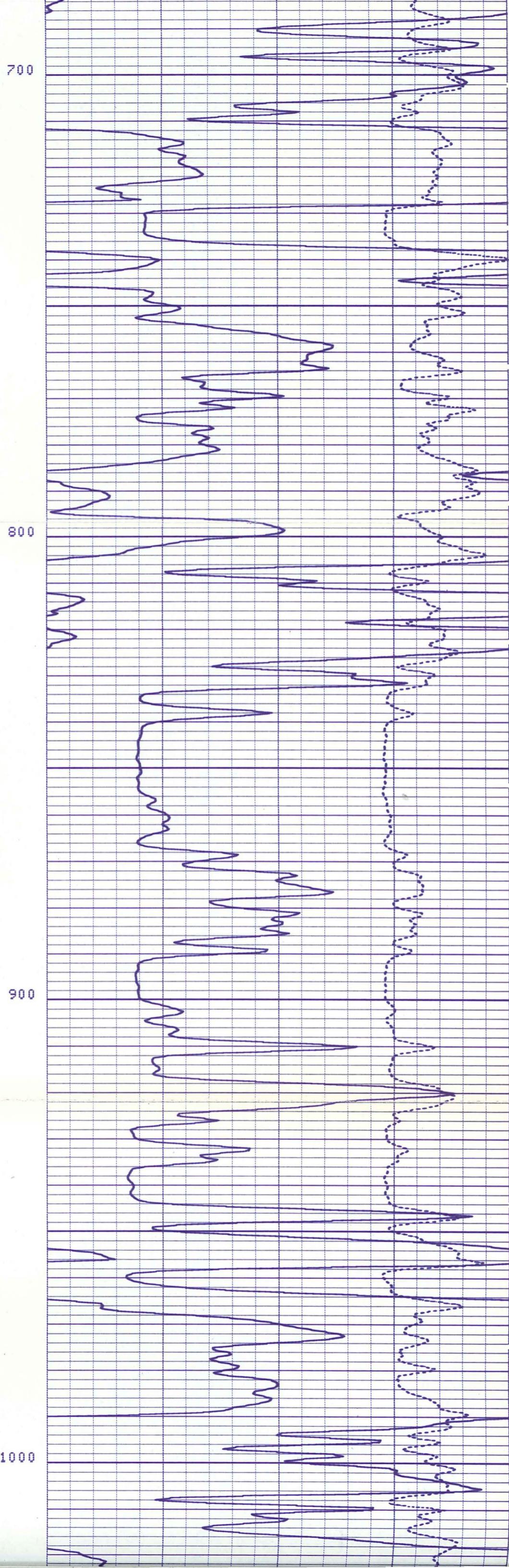
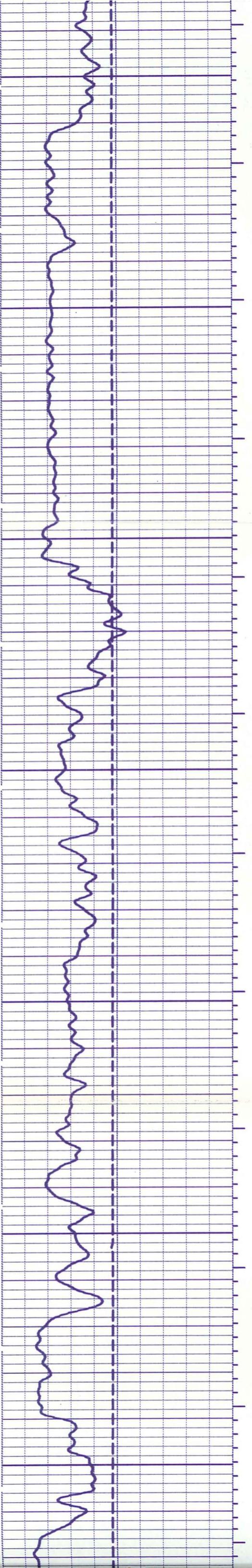
TENS(LB/2)	
10000.	0.0
NPHIC >	0.3000
0.7000	
DPHIC >	-0.100
0.3000	
NPHIC >	-0.100
0.3000	

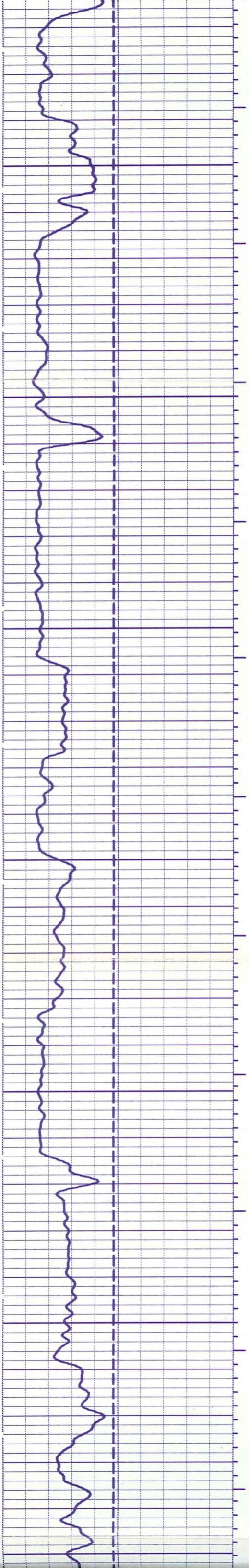
CALIPER		DIAM. IN INCHES
20"	30"	
<hr/>		
GAMMA RAY		API UNITS
0	150	
150	300	

DEPTH	CORRECTION	GRAMS/CC
	Use this scale when correction curve is presented in Track 2	OR
0	+ .25	- .25
		0
		+ .25
BULK DENSITY	GRAMS/CC	GRAMS/CC
2.0	2.5	3.0
1.0		
		2.0







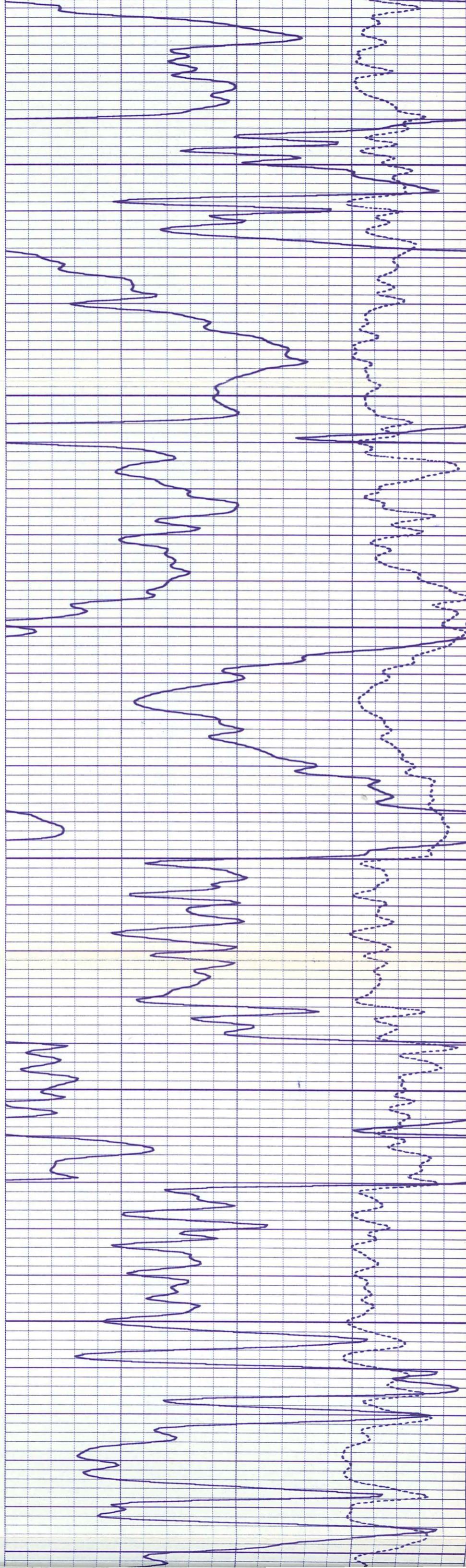


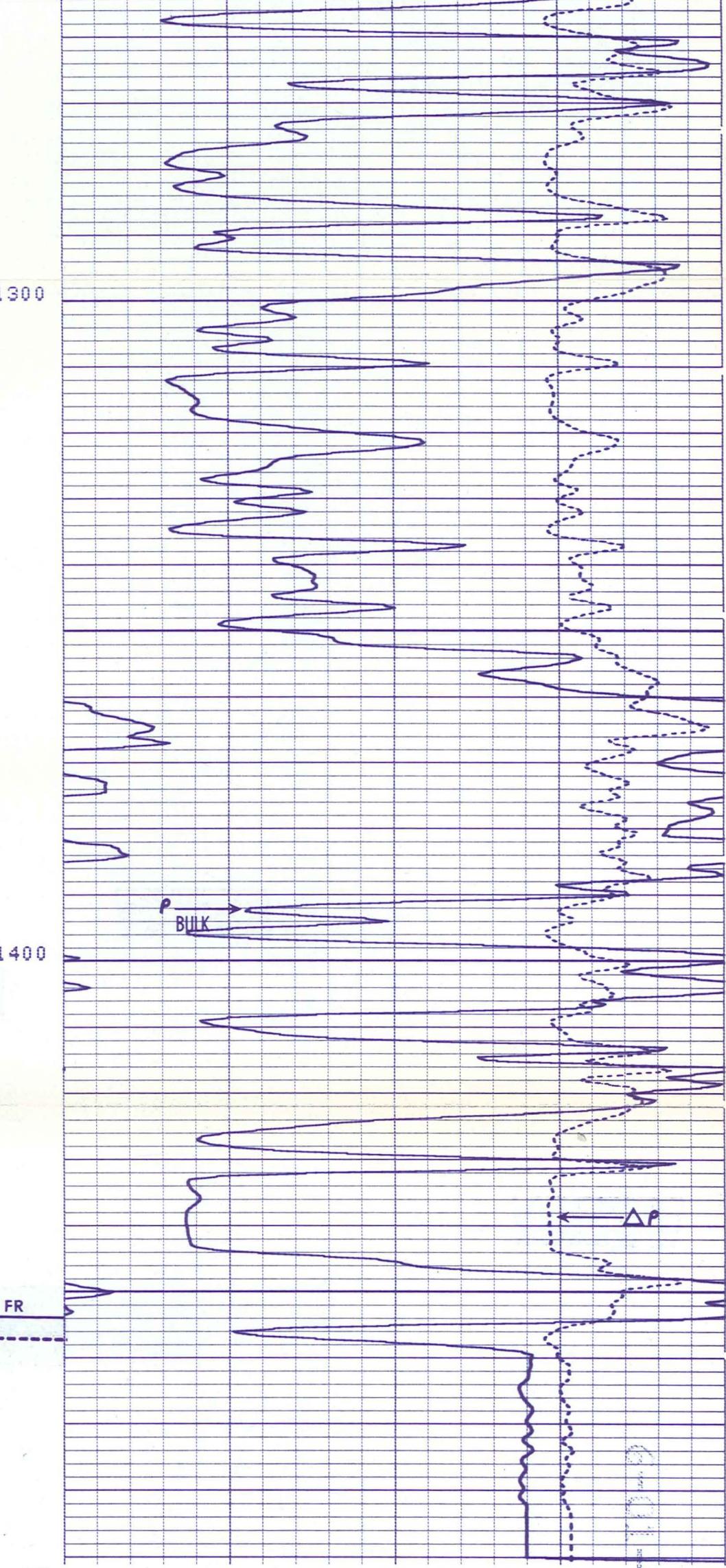
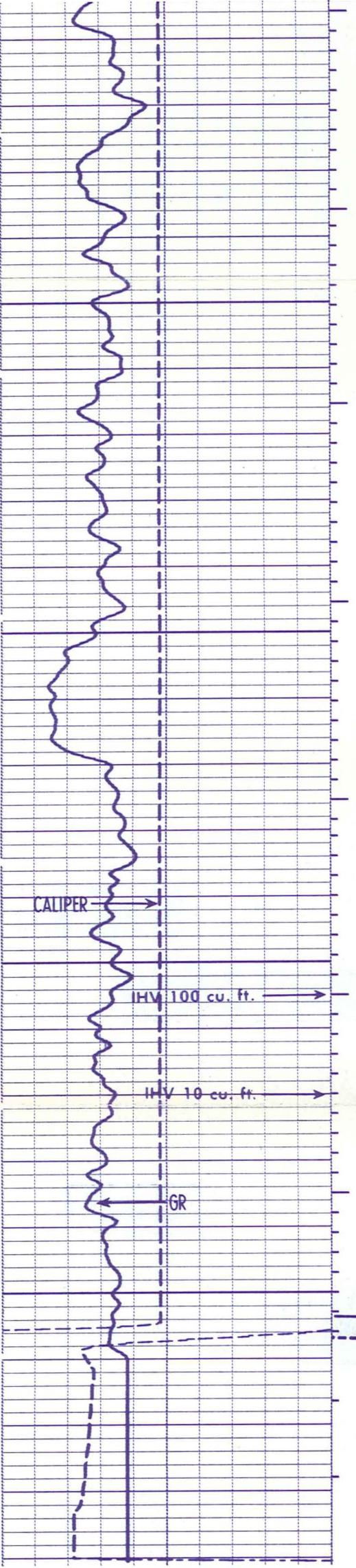
1000

1100

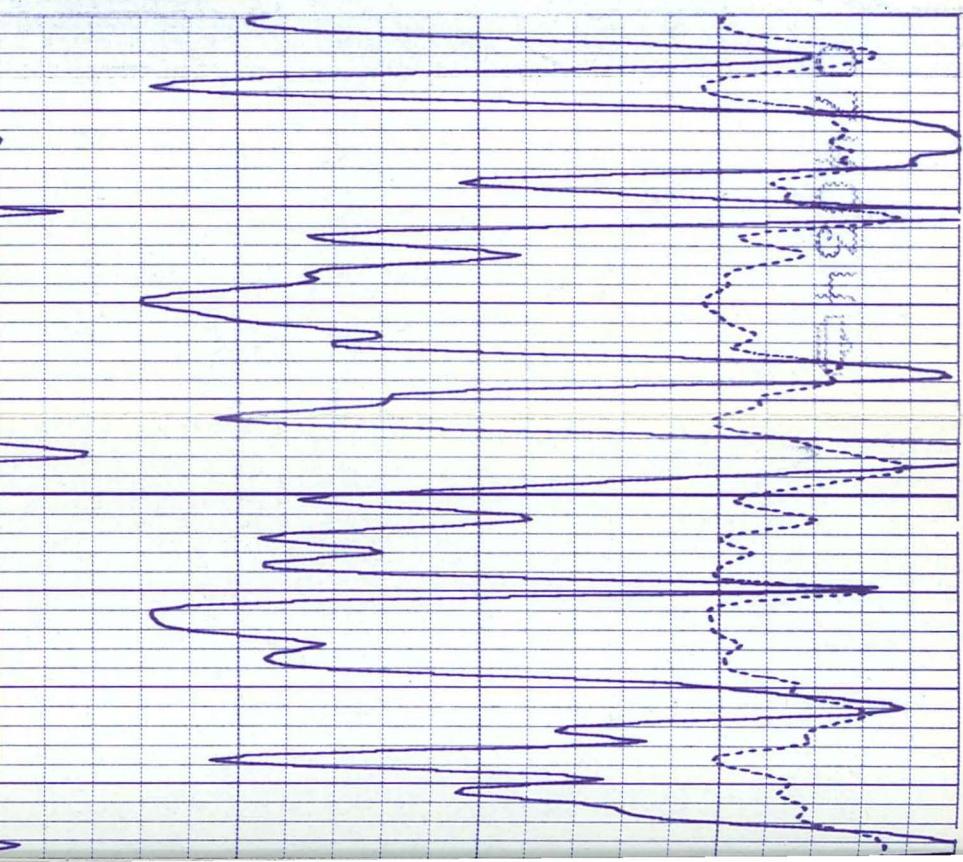
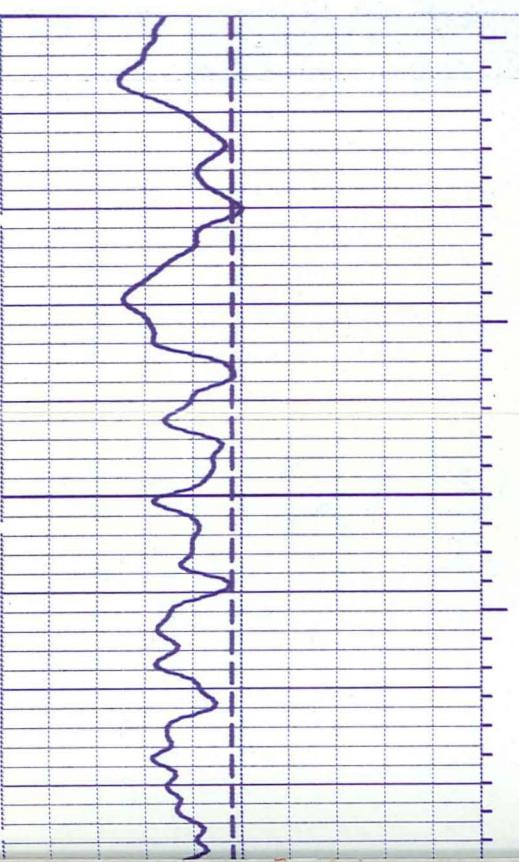
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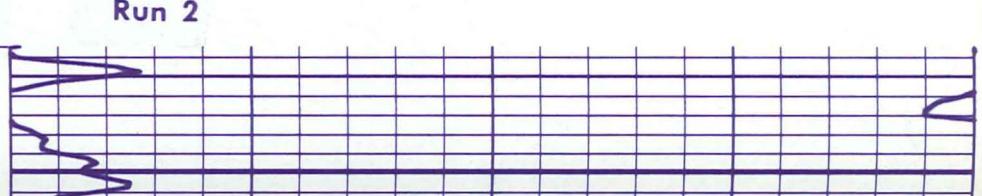
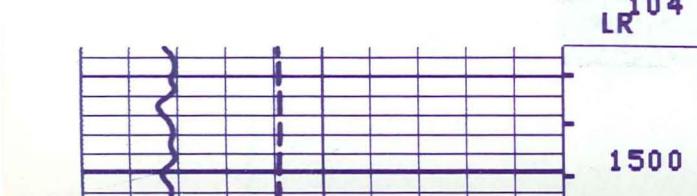
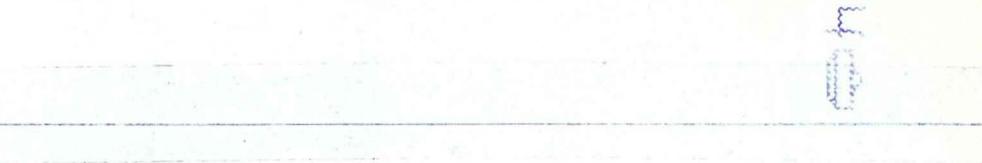
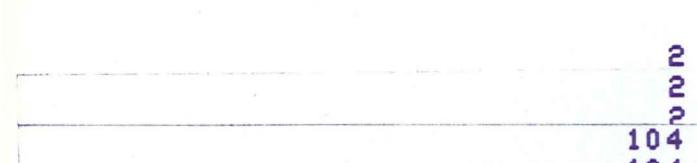
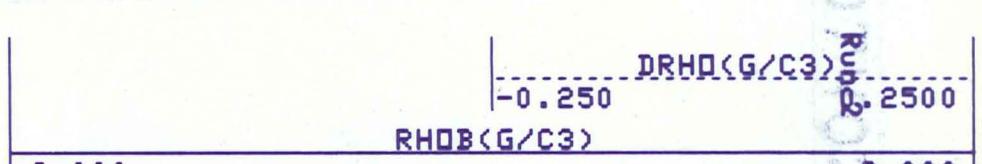
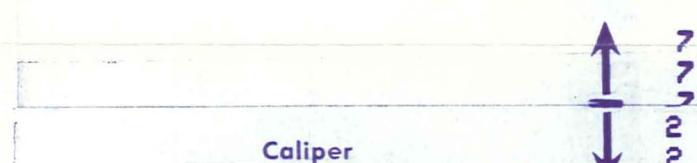
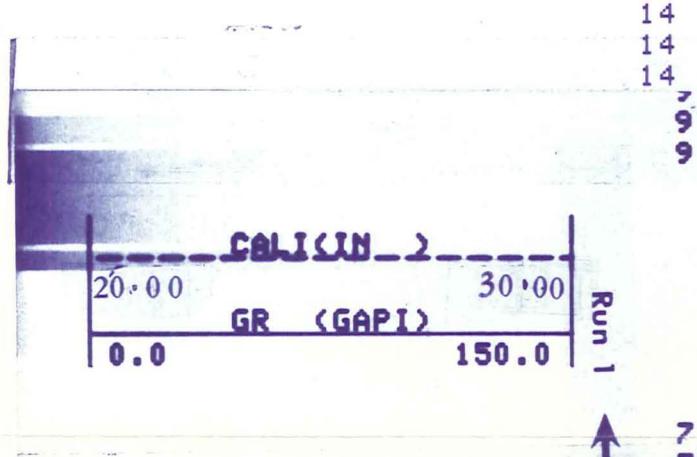
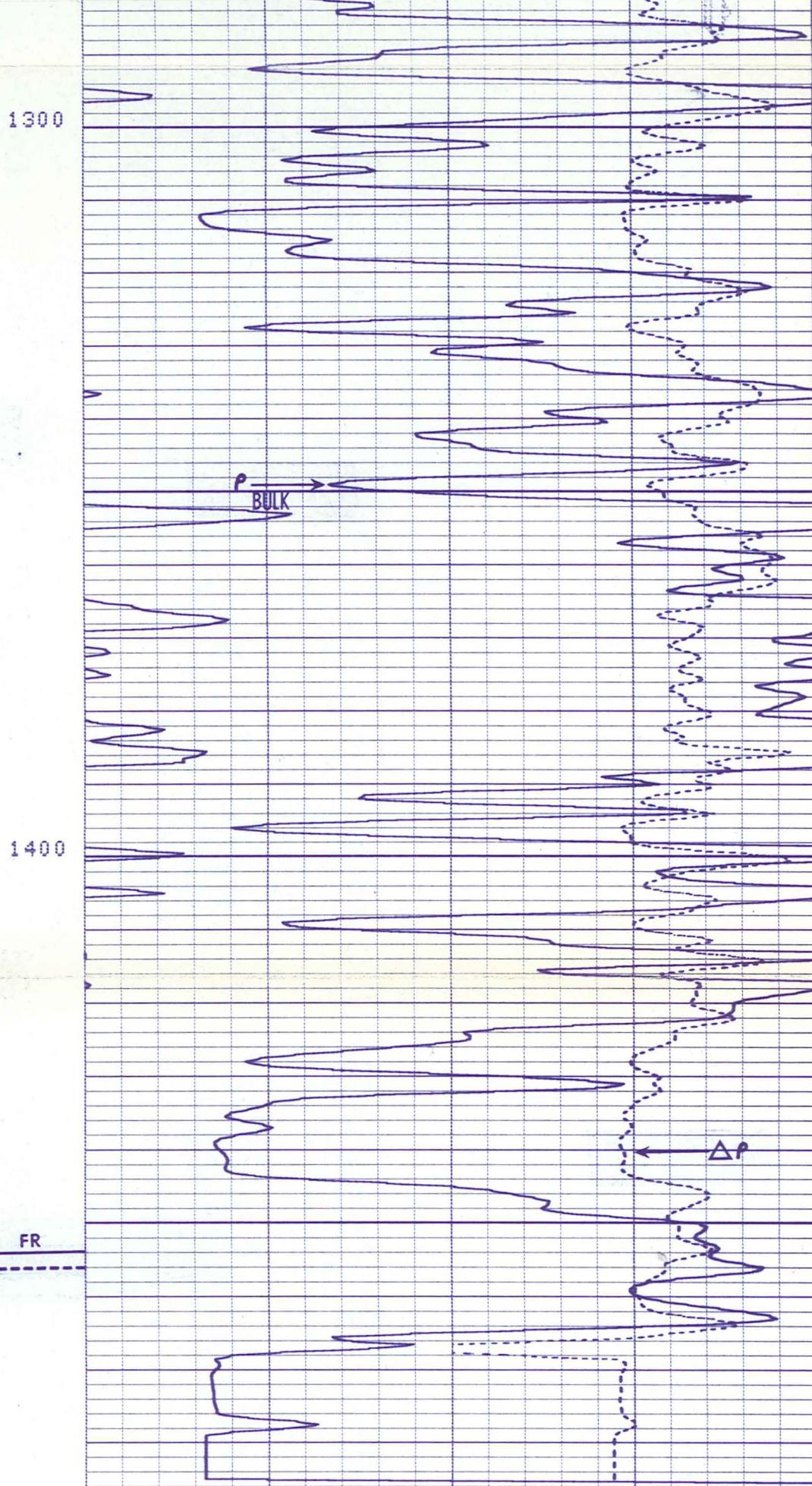
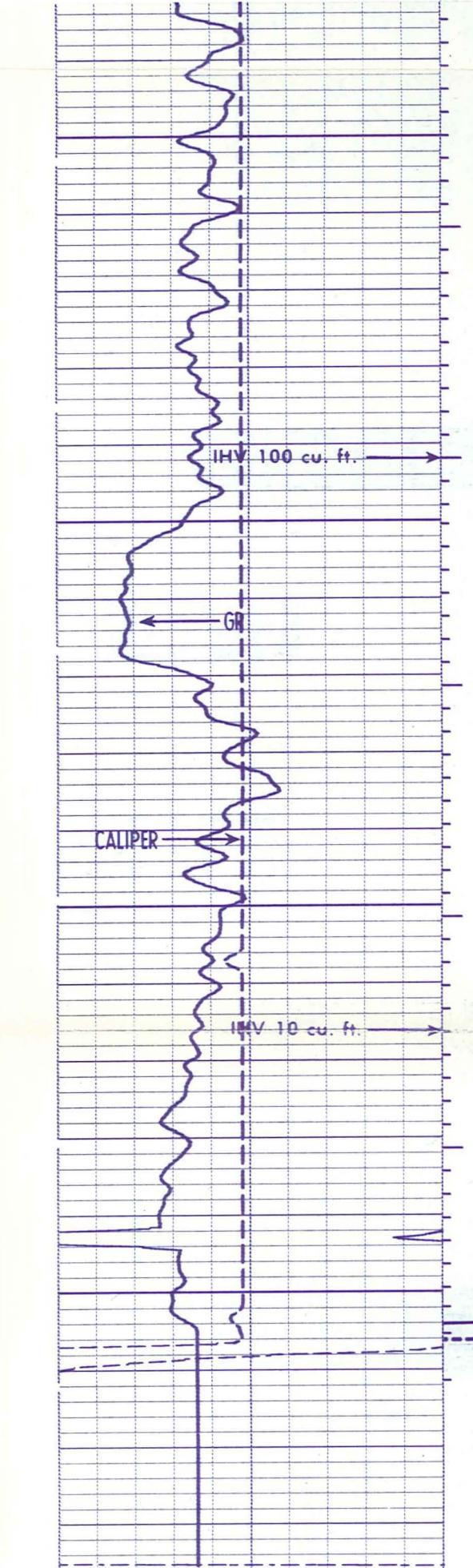
1300





15
15
15
15
REPEAT SECTION





GR (GAPI)

0.0

150.0

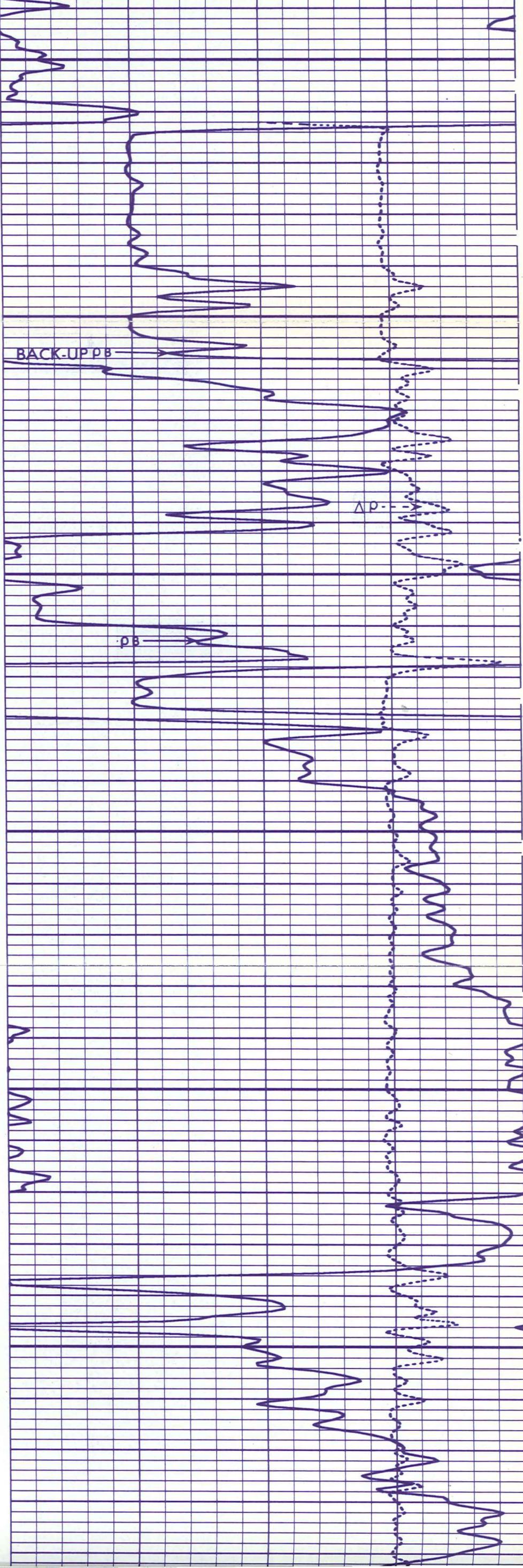
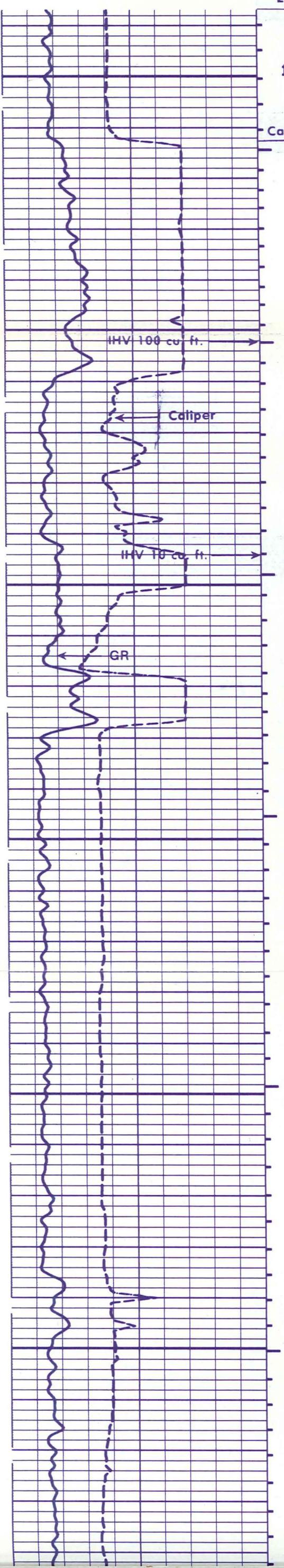
RHOB(G/C3)

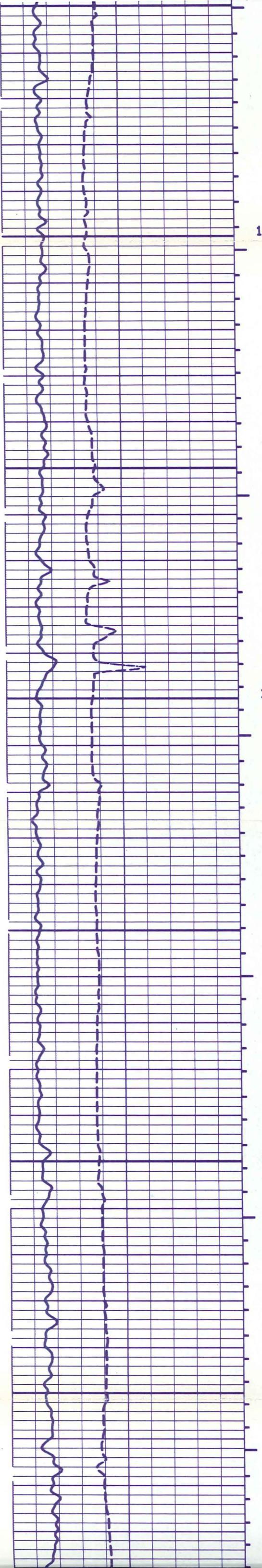
2.000

3.000

2
2
2
104
104
104
LR

Run 2

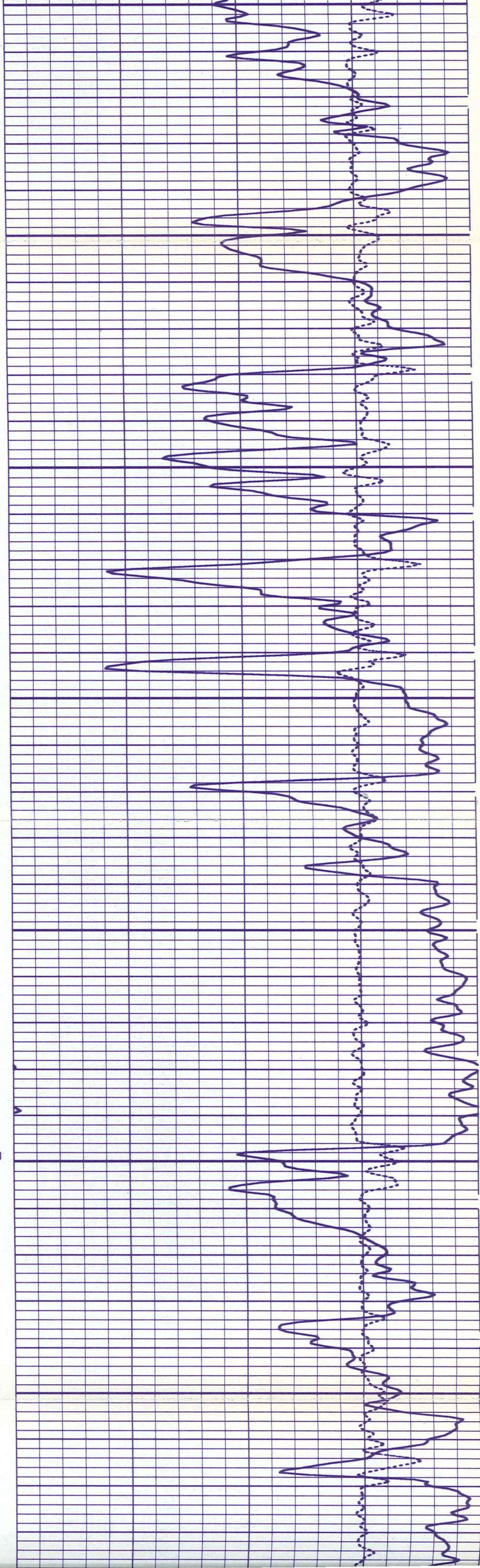


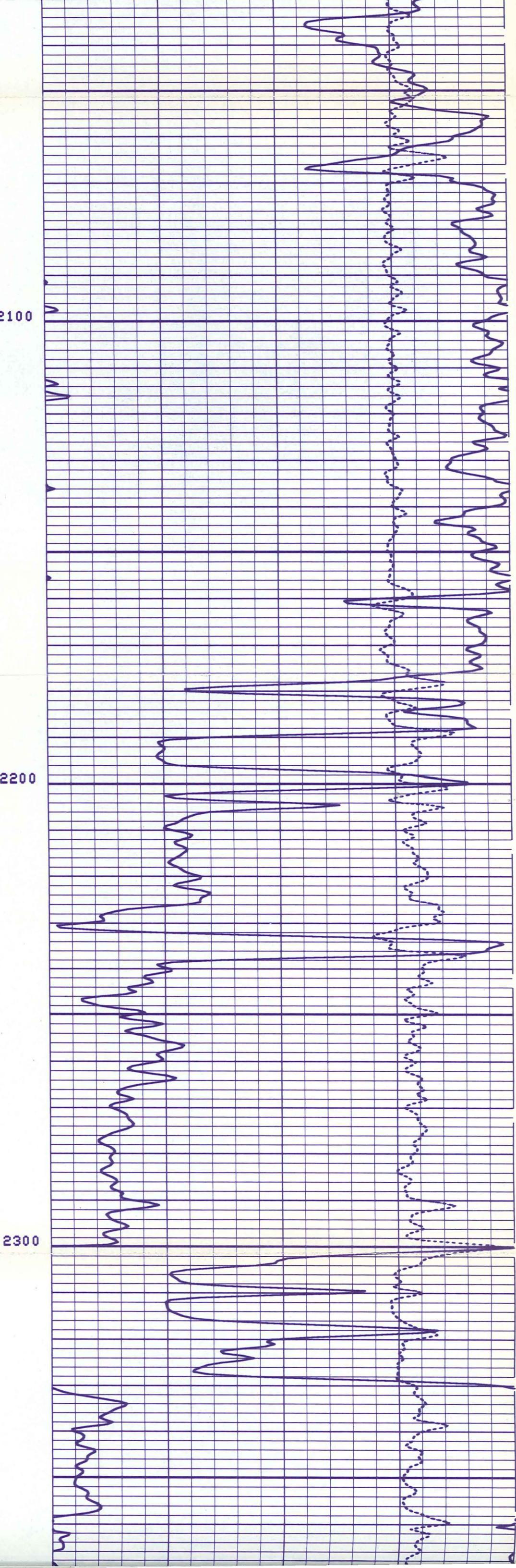
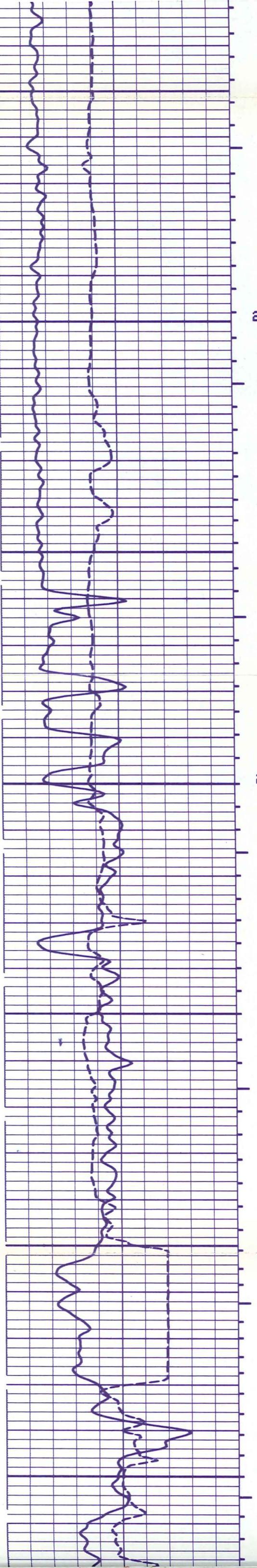


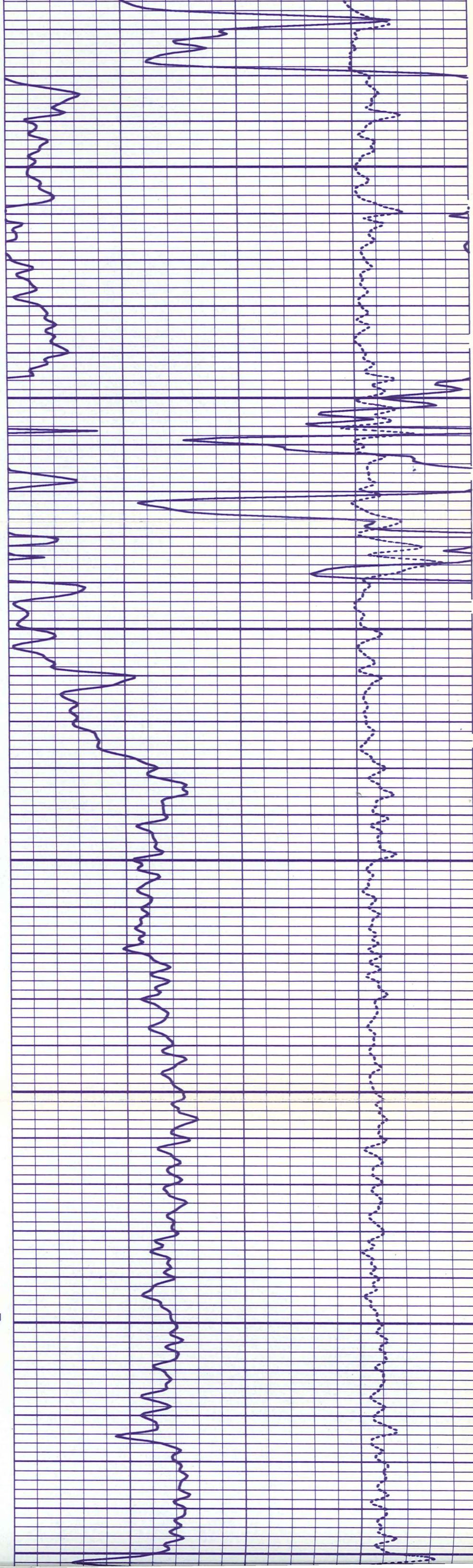
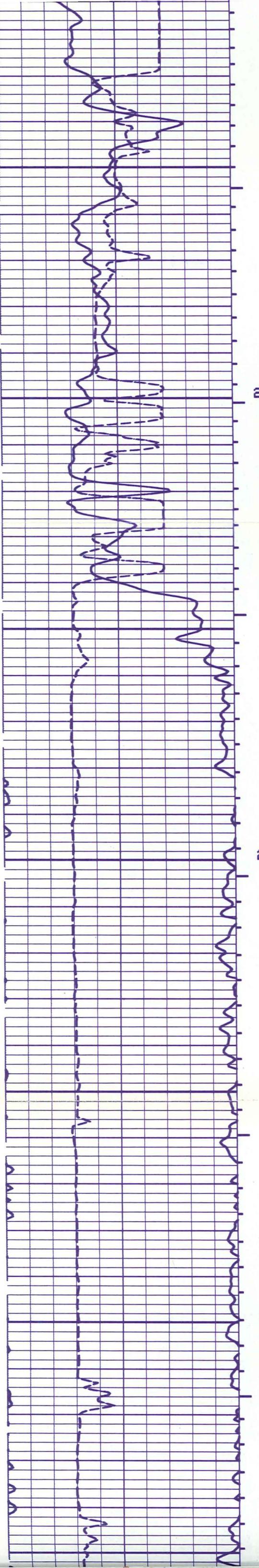
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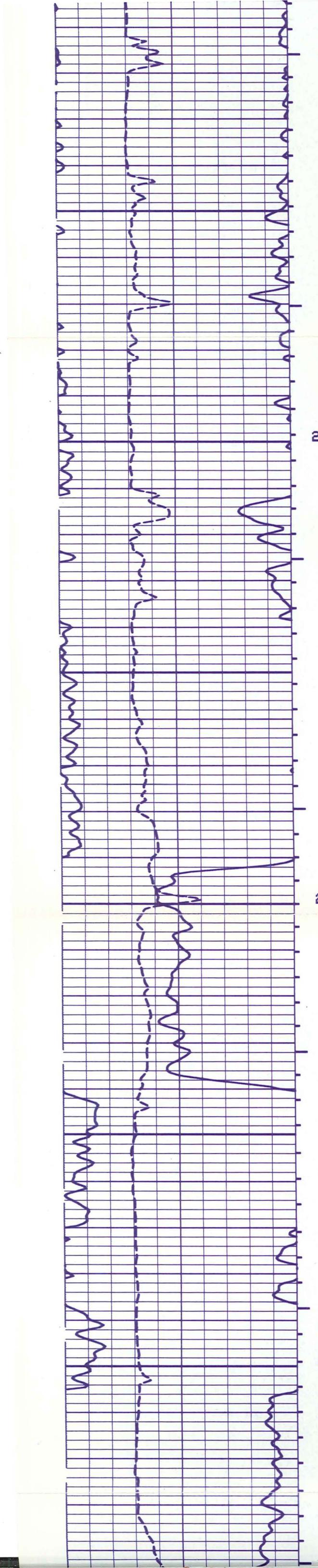
1900

2000





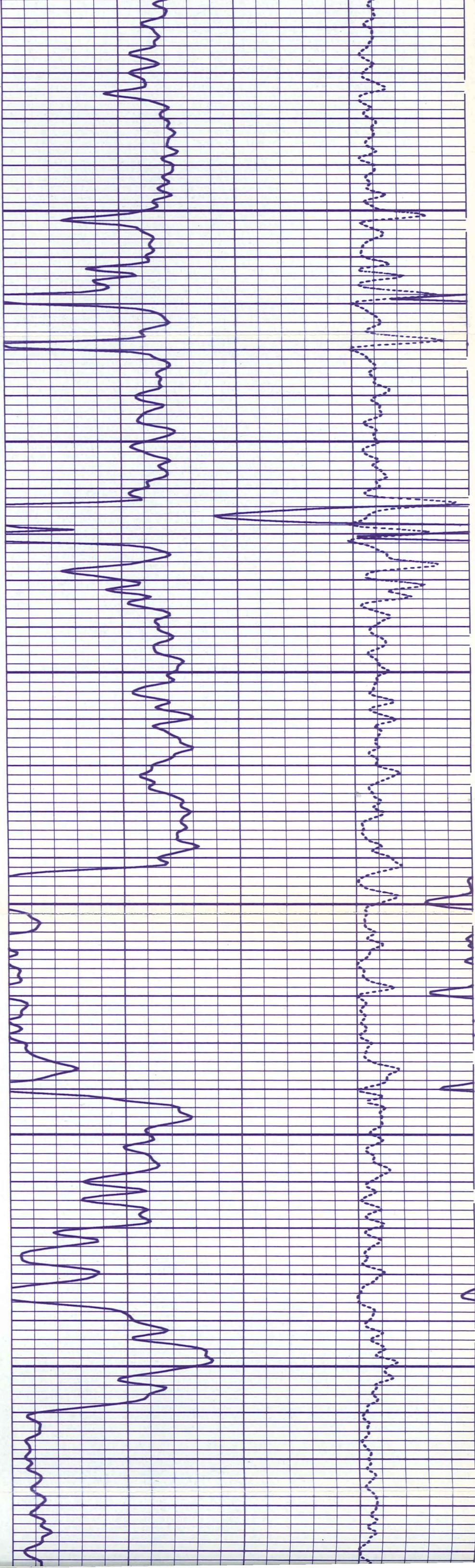


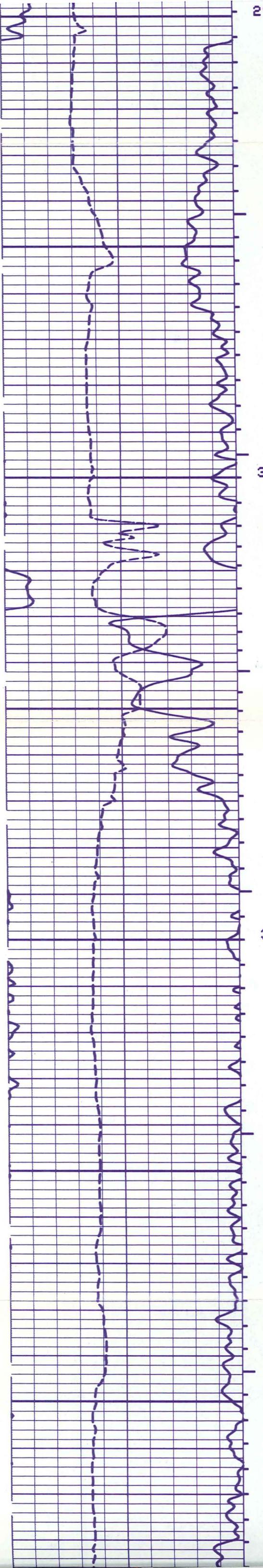


2700

2800

2900



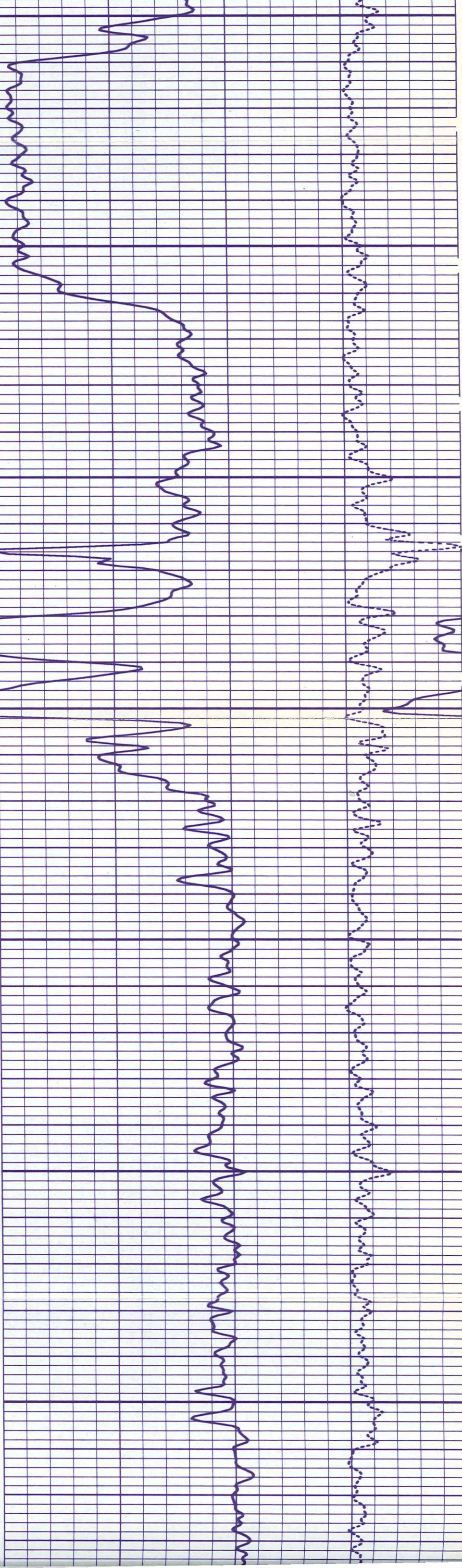


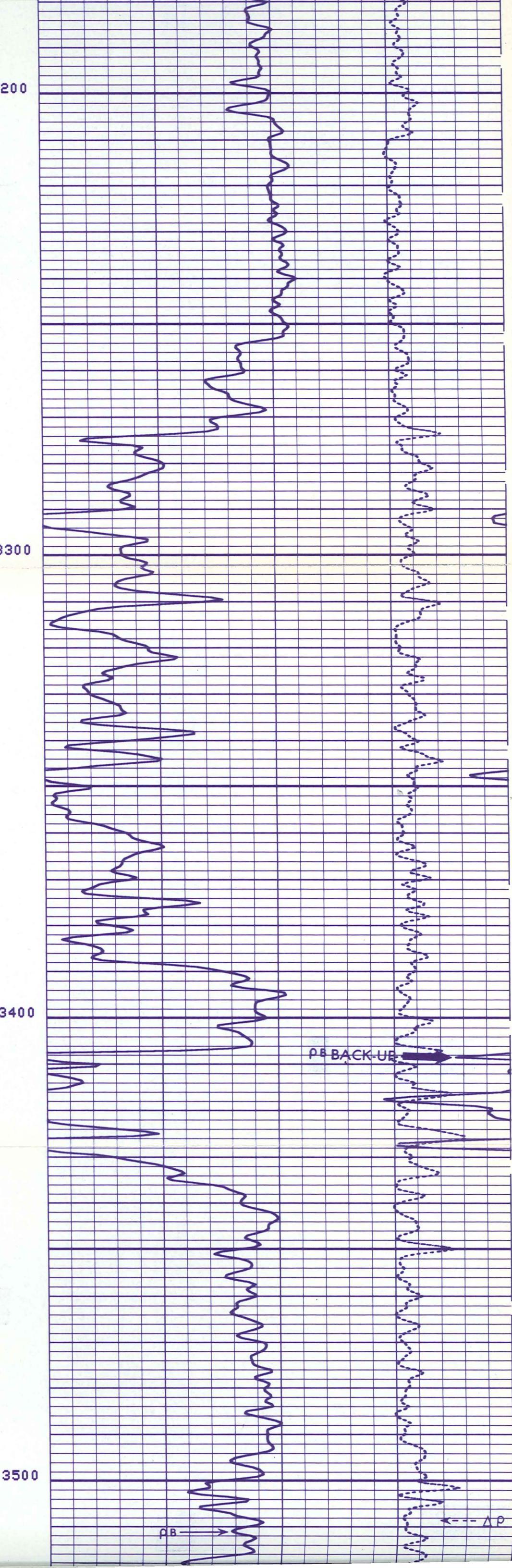
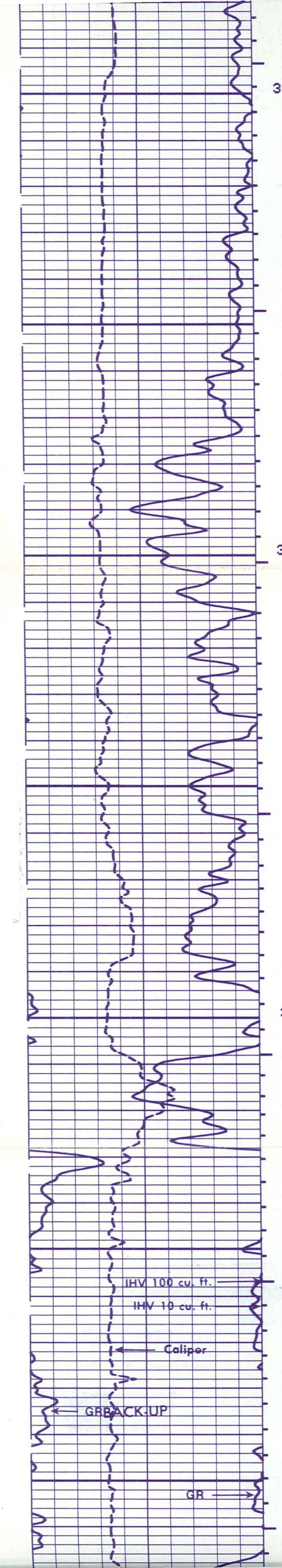
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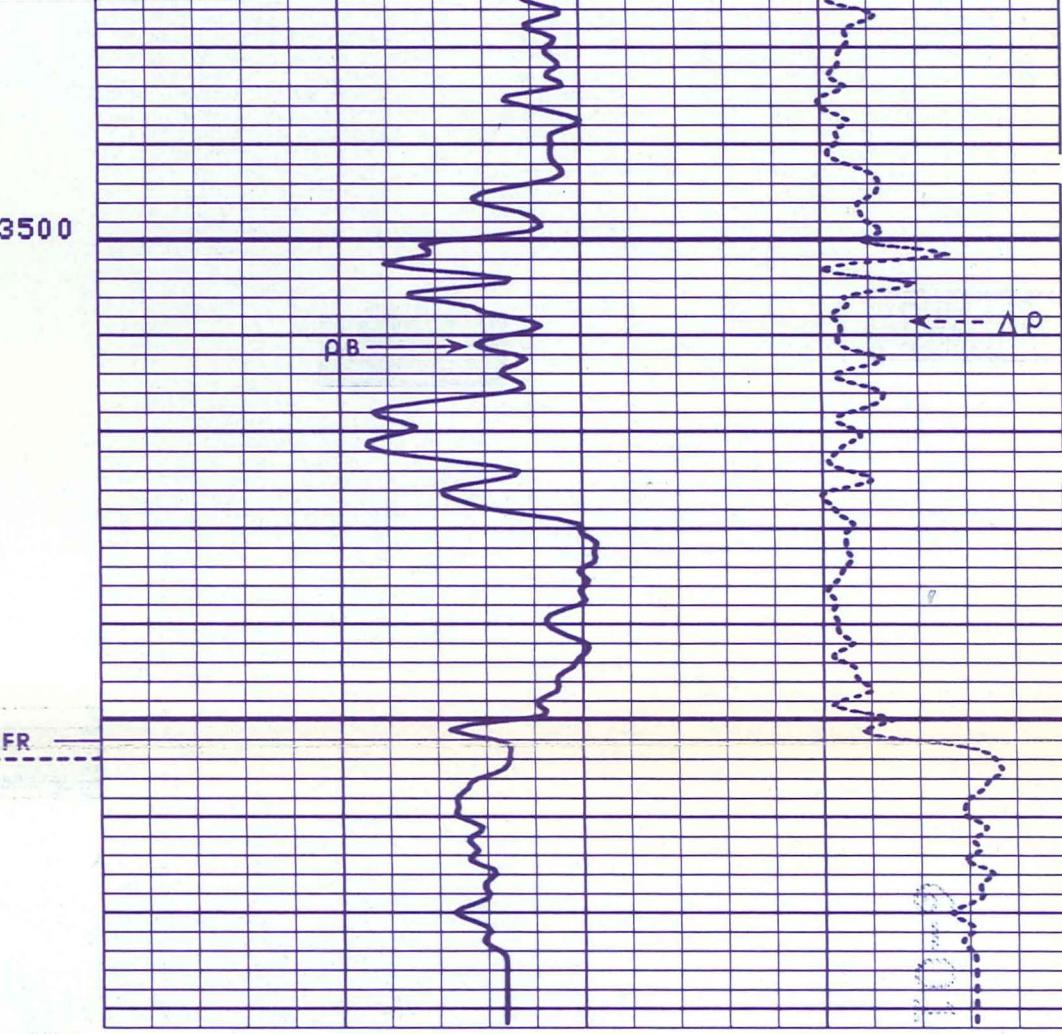
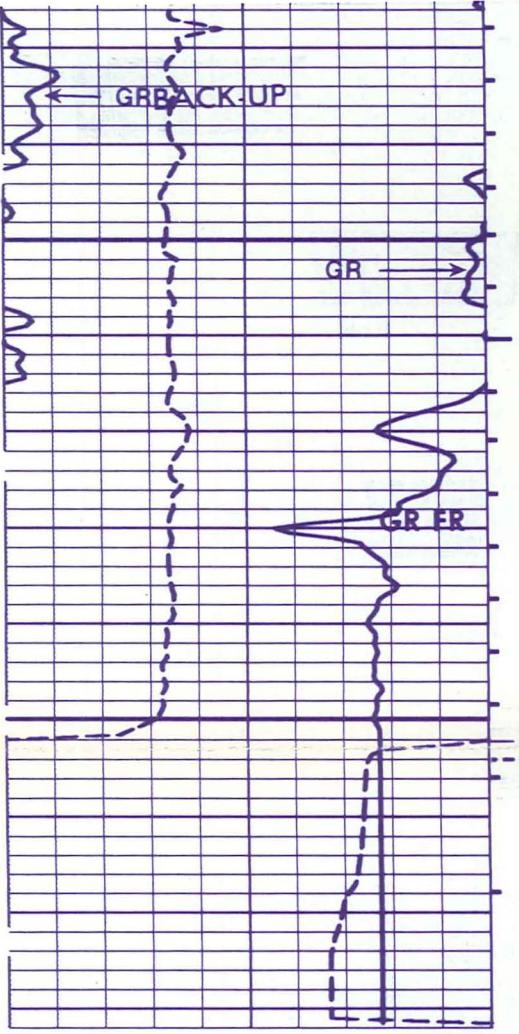
3000

3100

3200





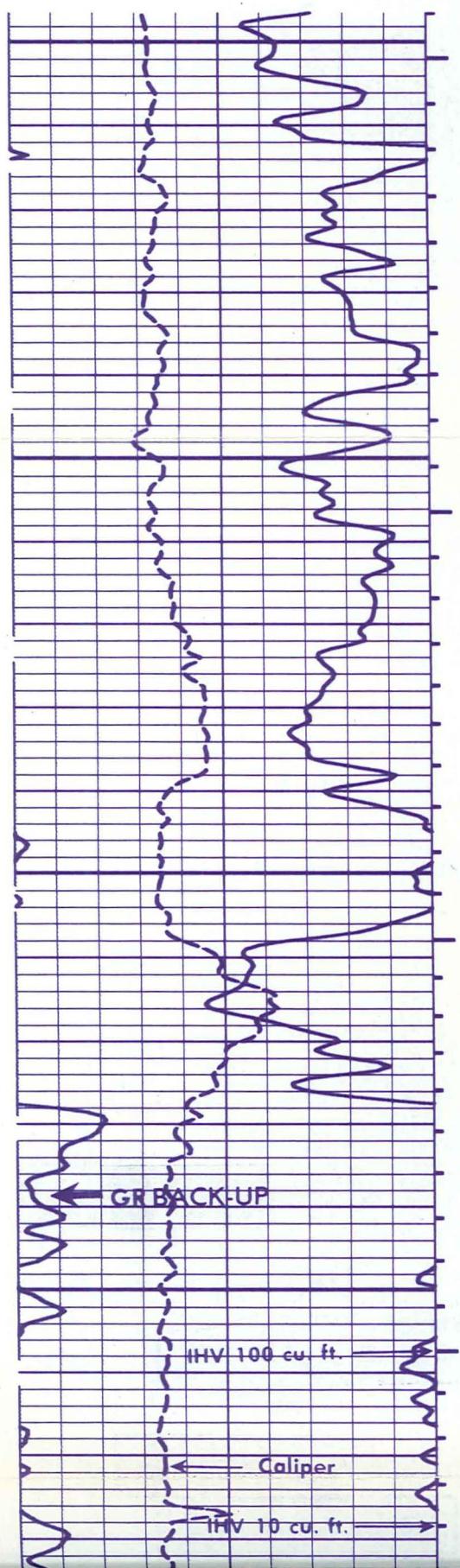


104
104
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104

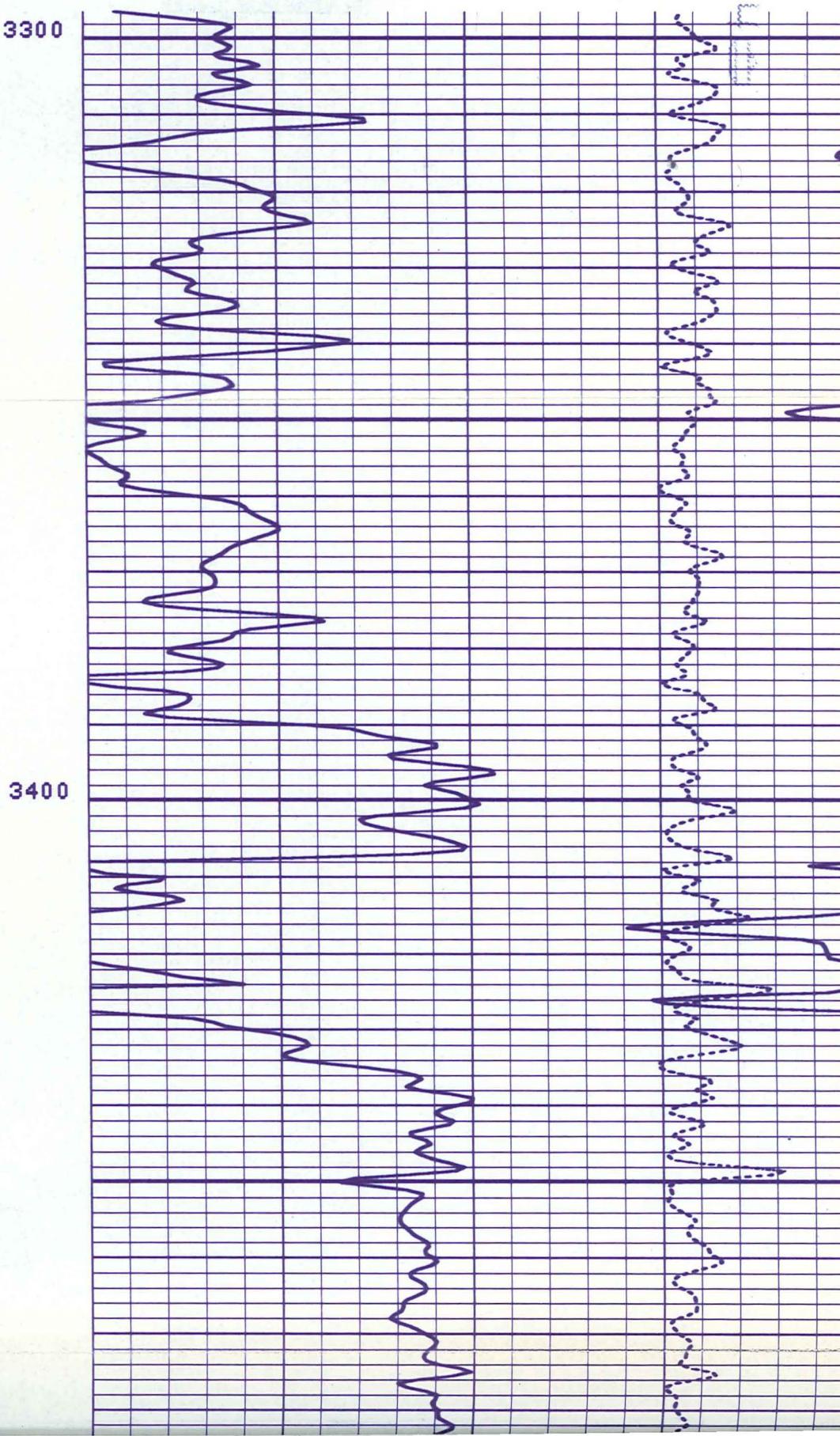
103
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103
103

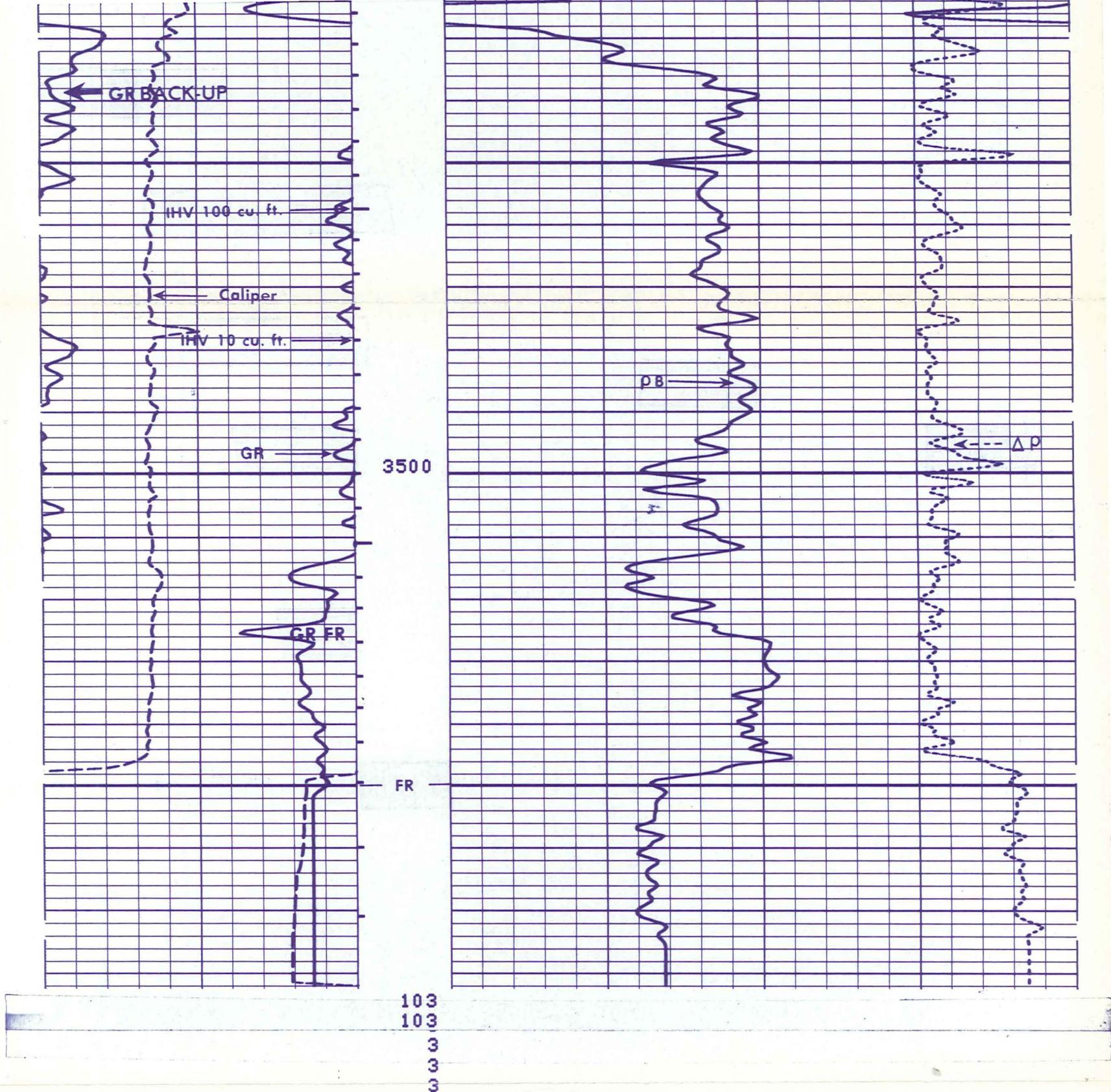
REPEAT SECTION

3300



3400





CALICIN	GR (GAPI)
15.00	25.00
0.0	150.0

DRHO(G/C3)	RHOB(G/C3)	Run 2
-0.250	0.2500	2.000
		3.000

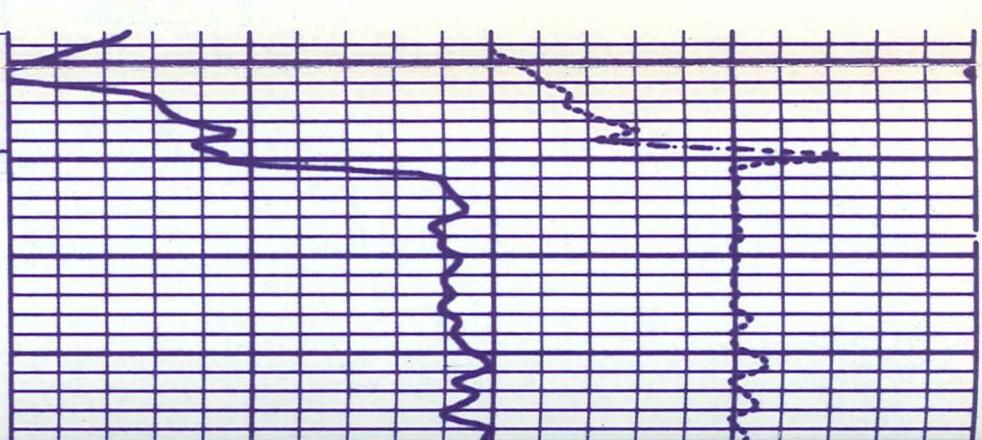
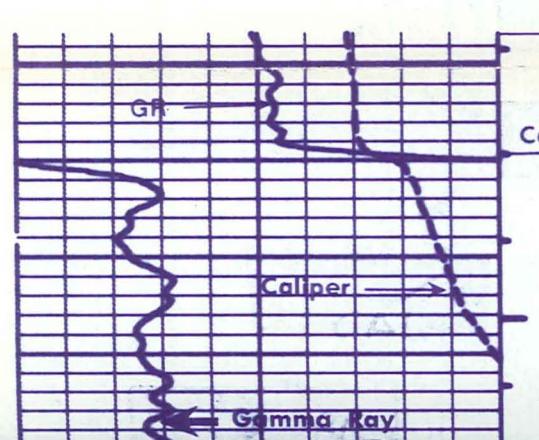
Caliper
SCALE CHANGE

CALICIN	GR (GAPI)
6.000	16.00
0.0	150.0

DRHO(G/C3)	RHOB(G/C3)	Run 2
-0.250	0.2500	2.000
		3.000

9 9 9 9 9 9
8 8 8 8 8 8

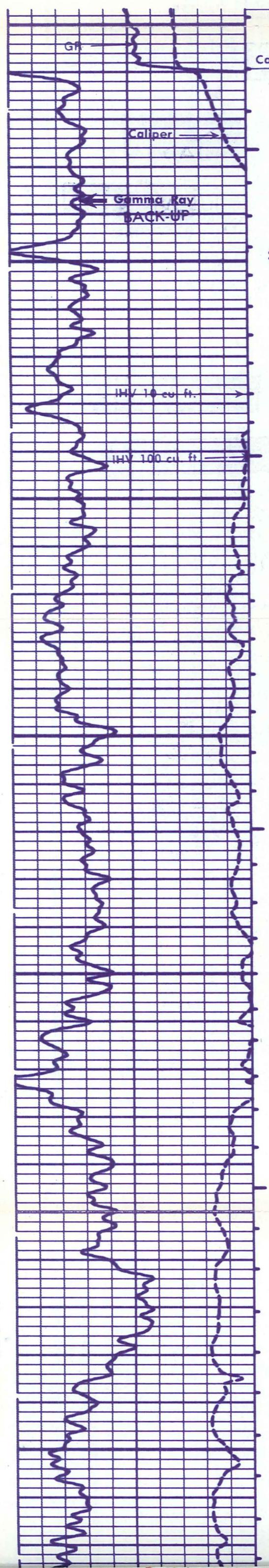
Run 3



77

Run 3

LR



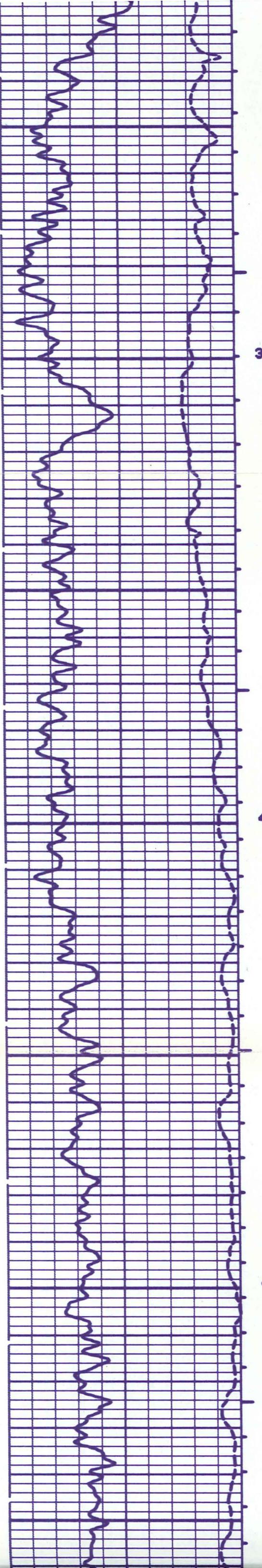
3600

3700

3800

 ΔP

OB

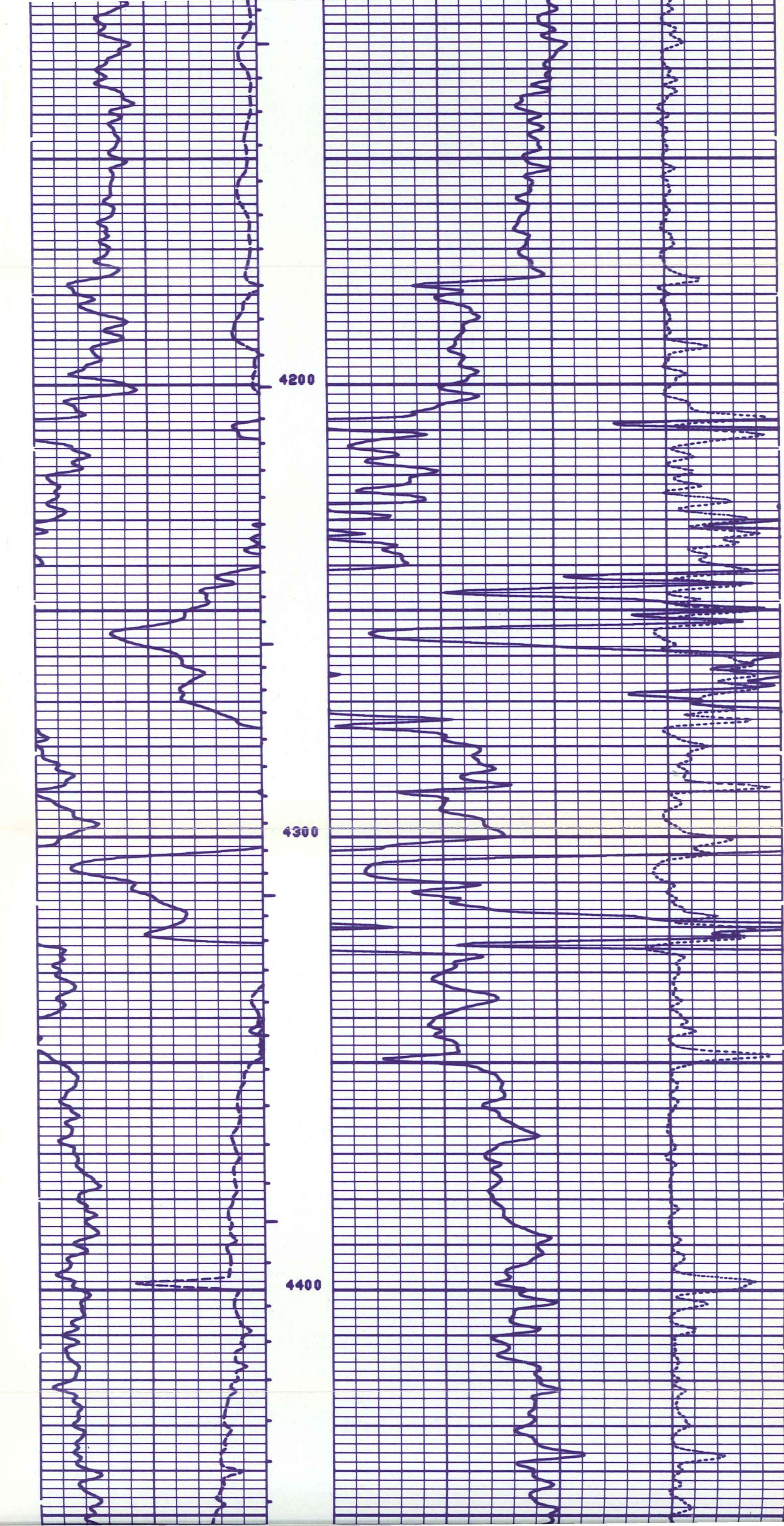


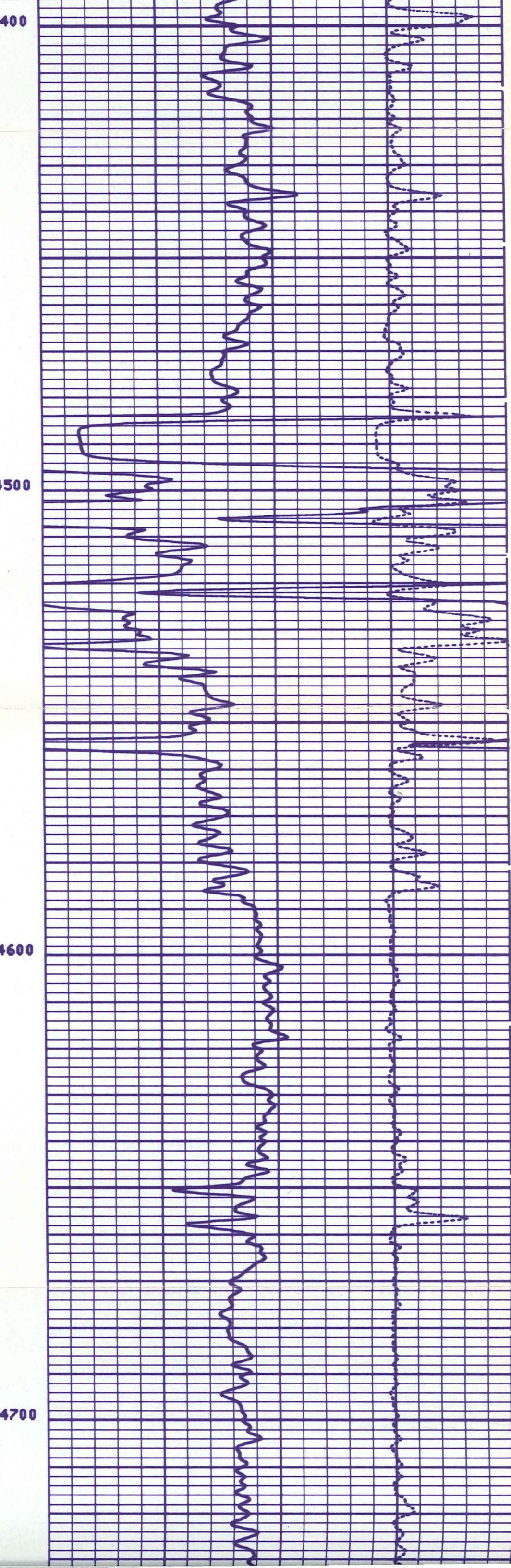
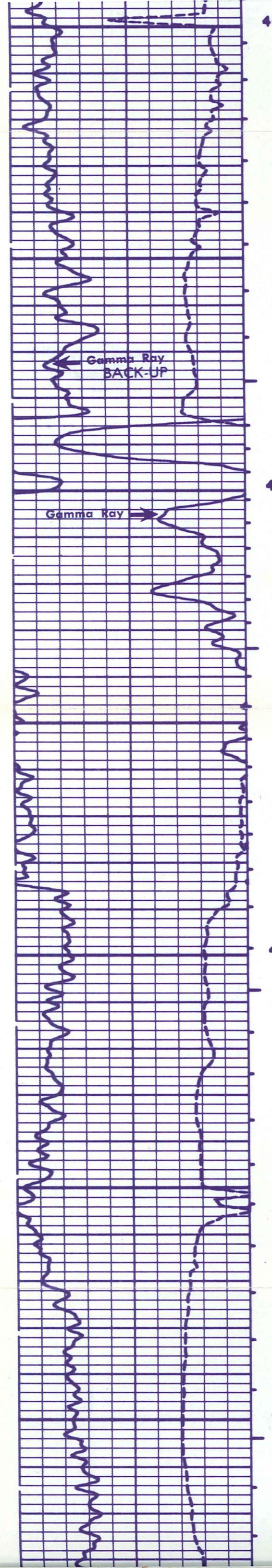
3900

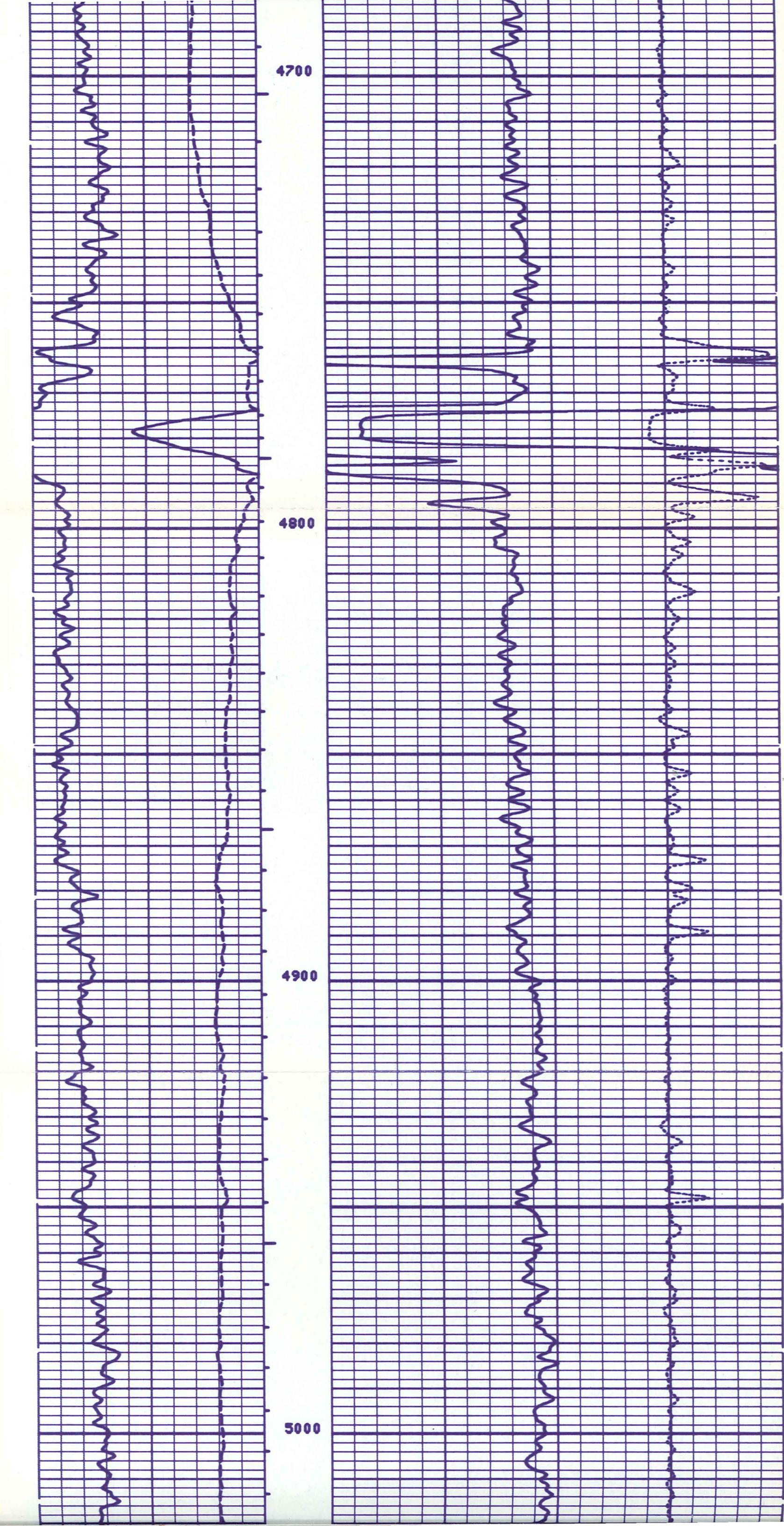
4000

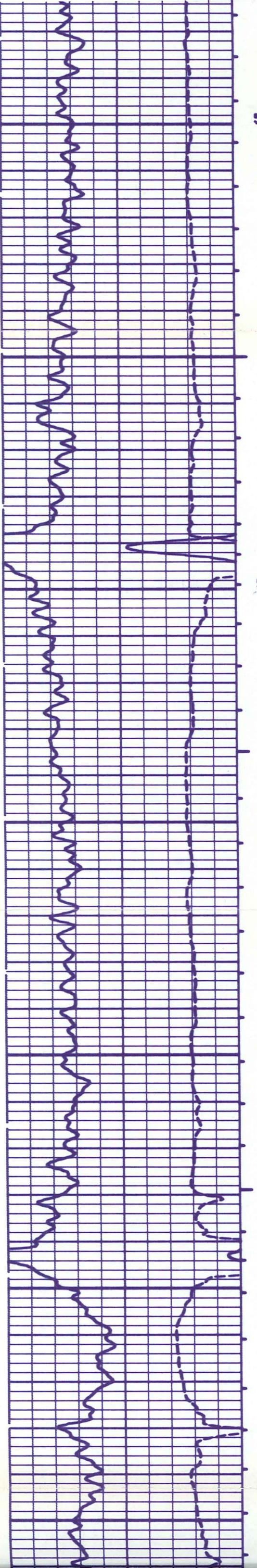
4100









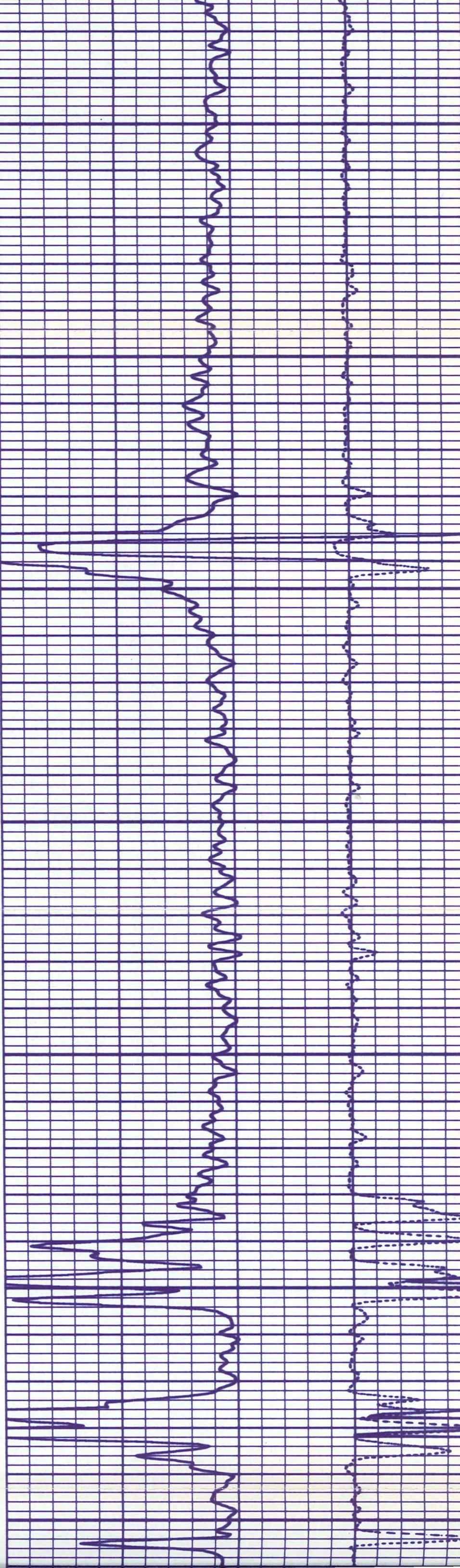


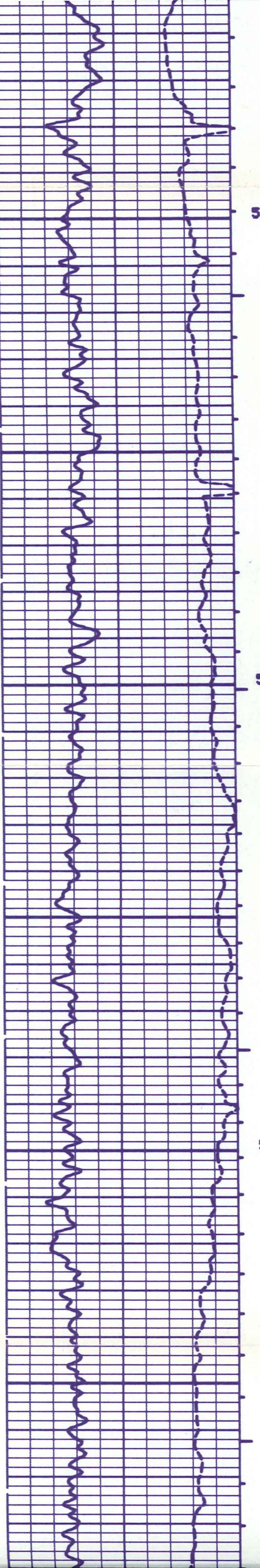
5000

5100

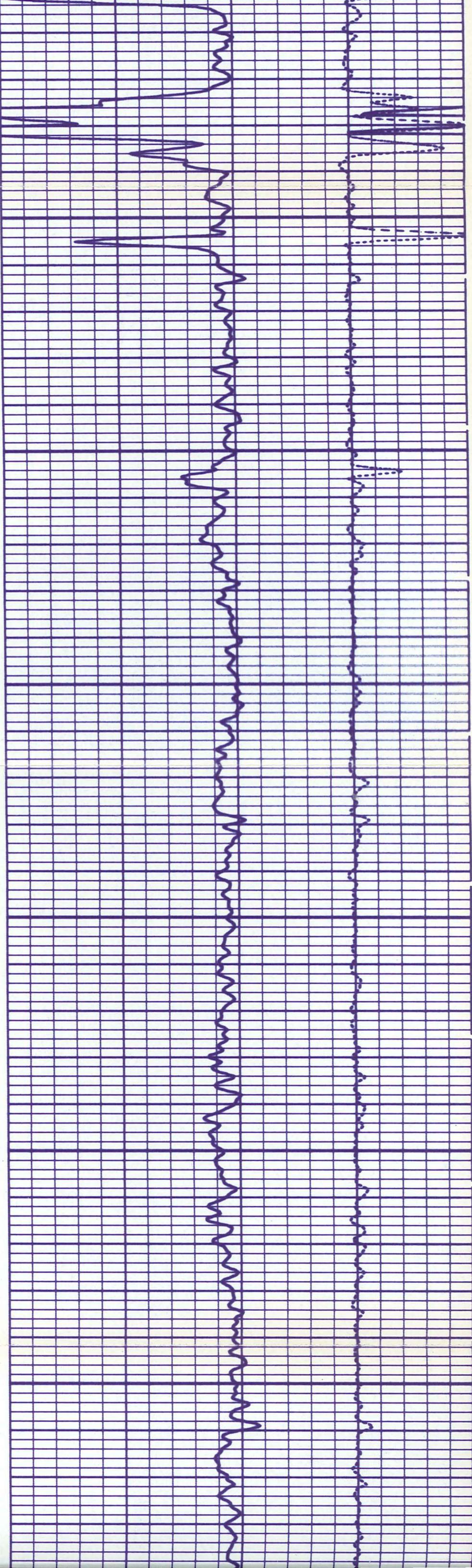
5200

5300



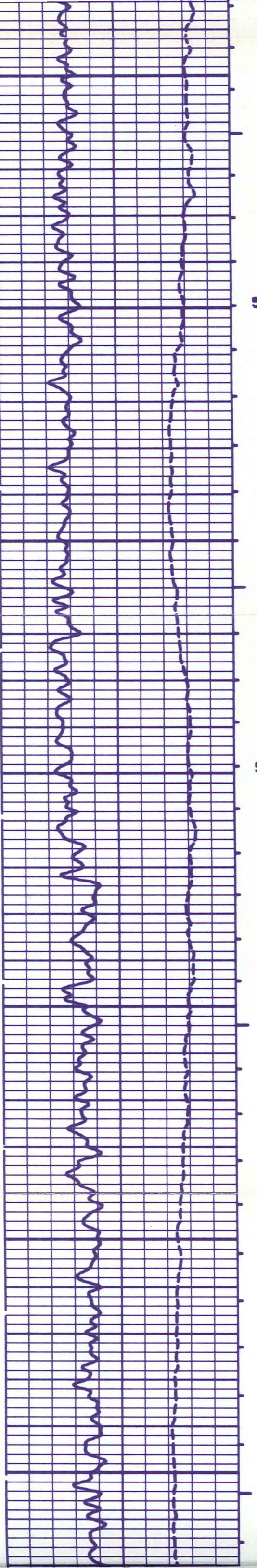


5300



5400

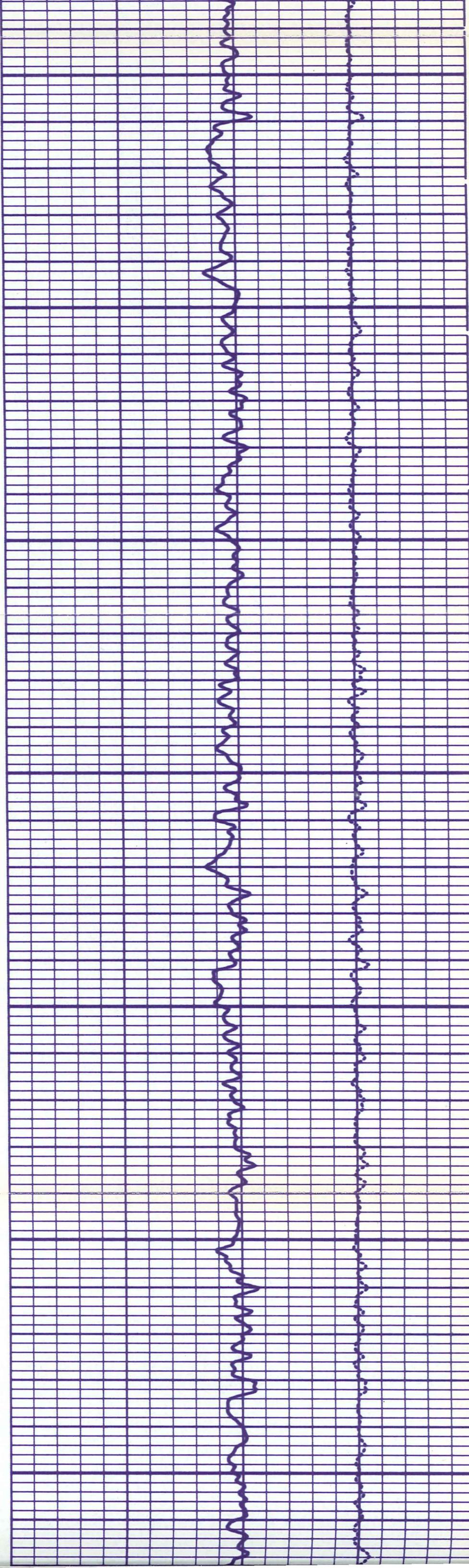
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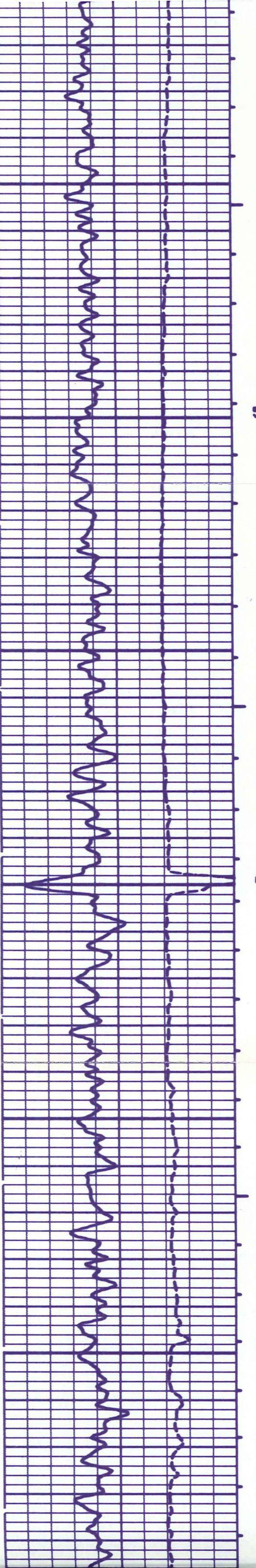


5600

5700

5800

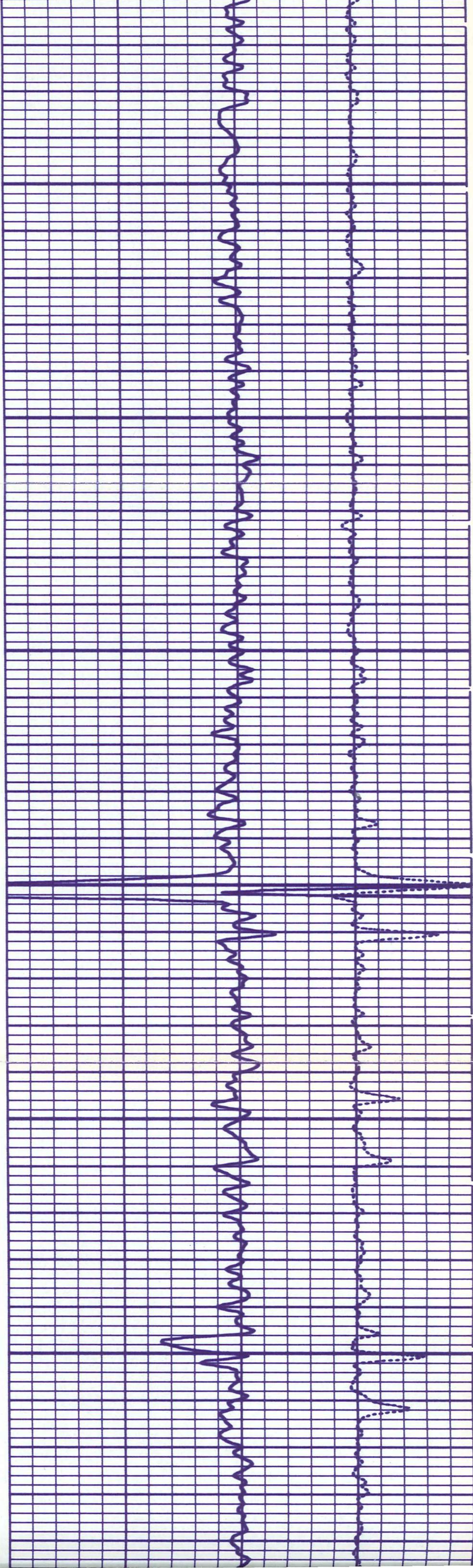


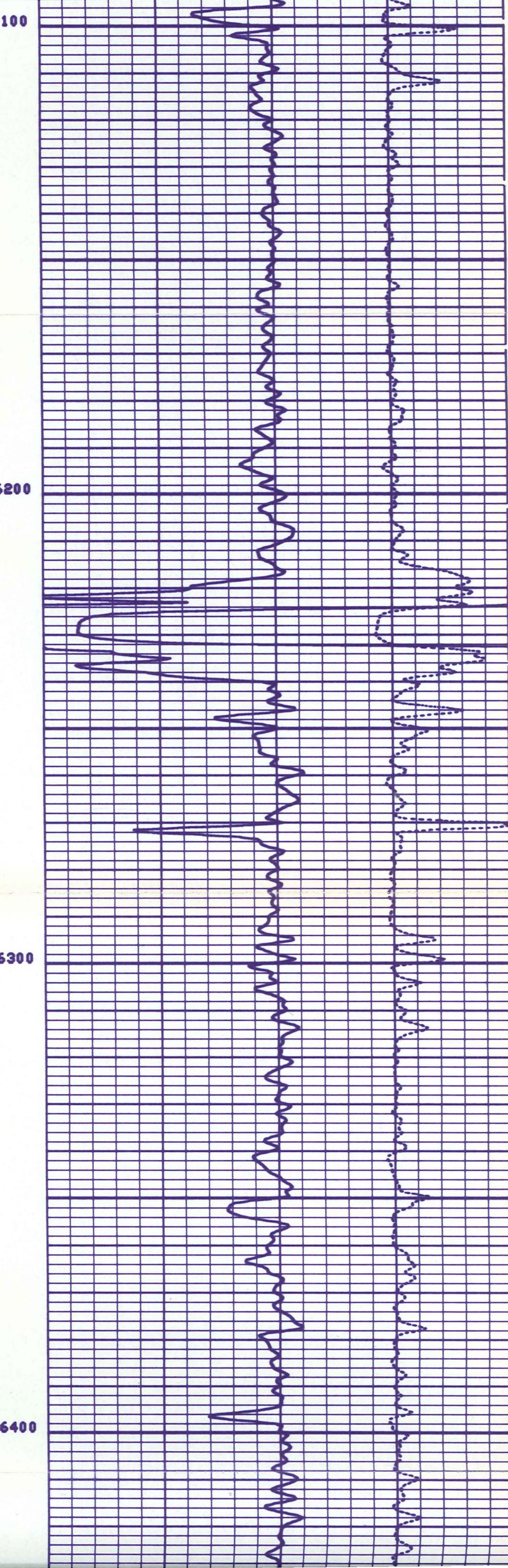
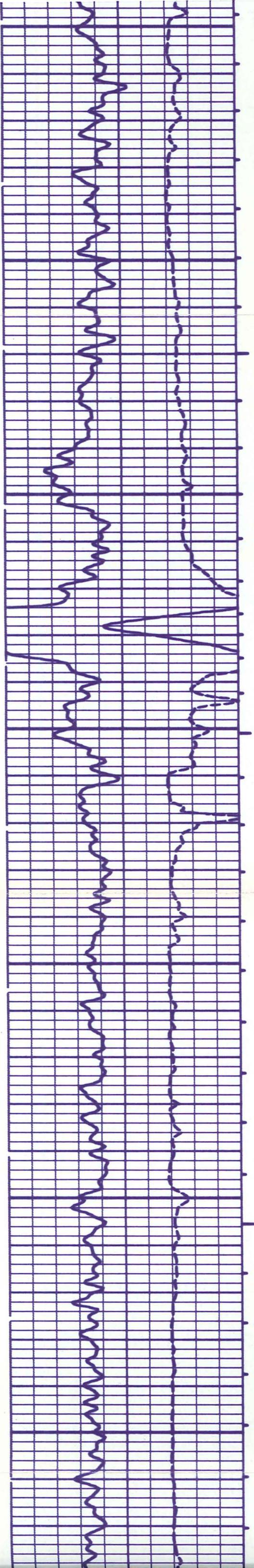


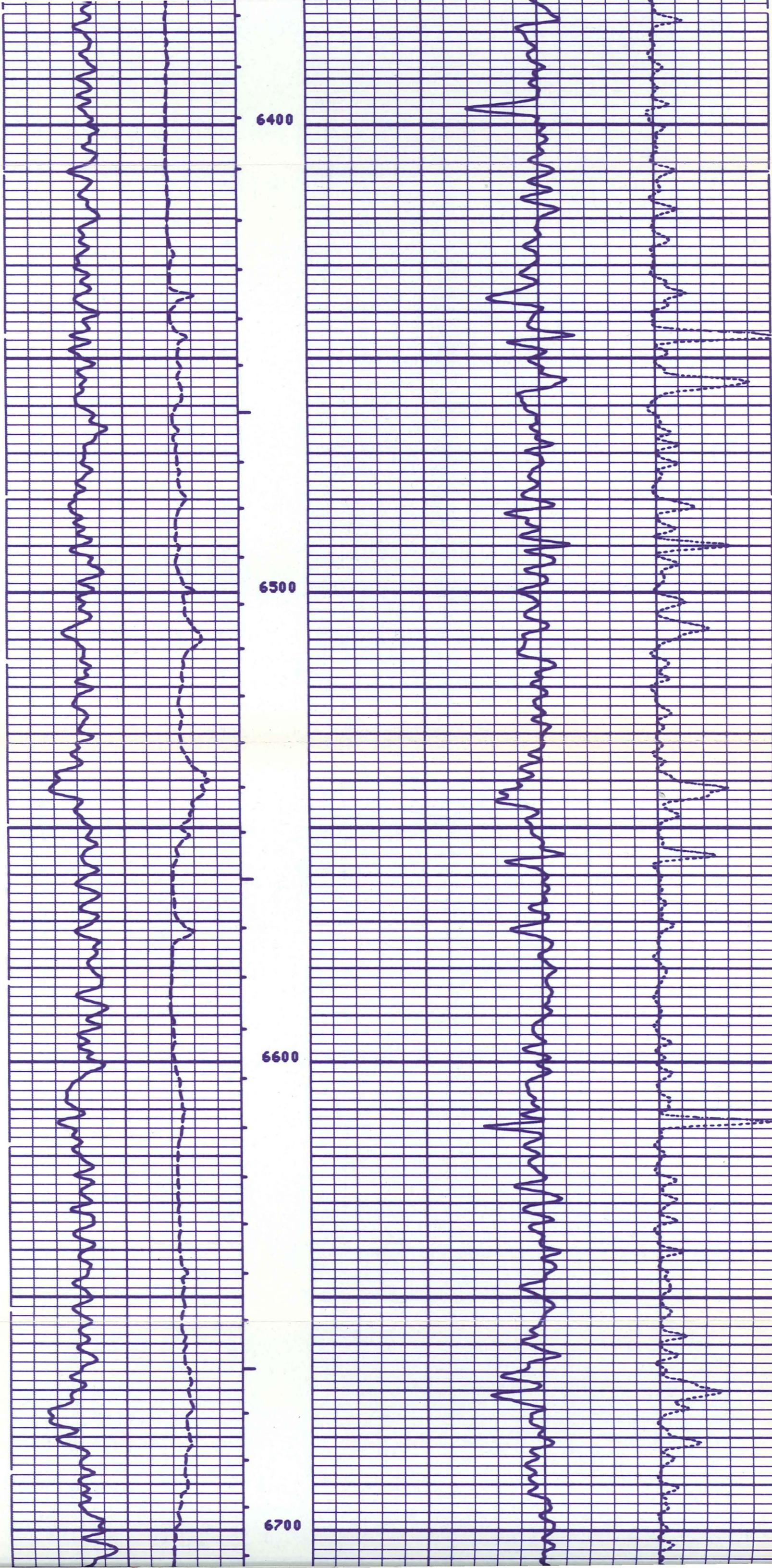
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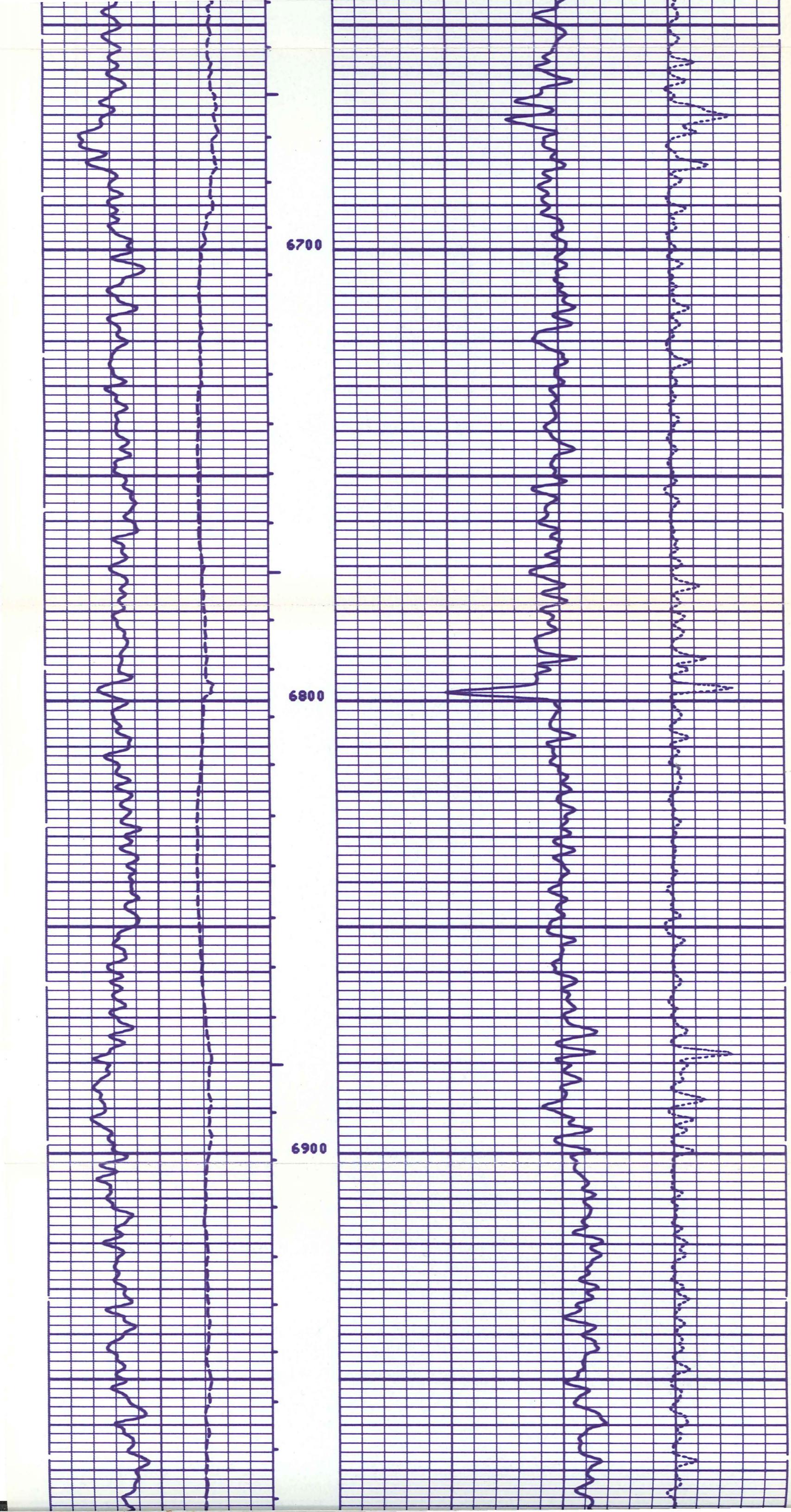
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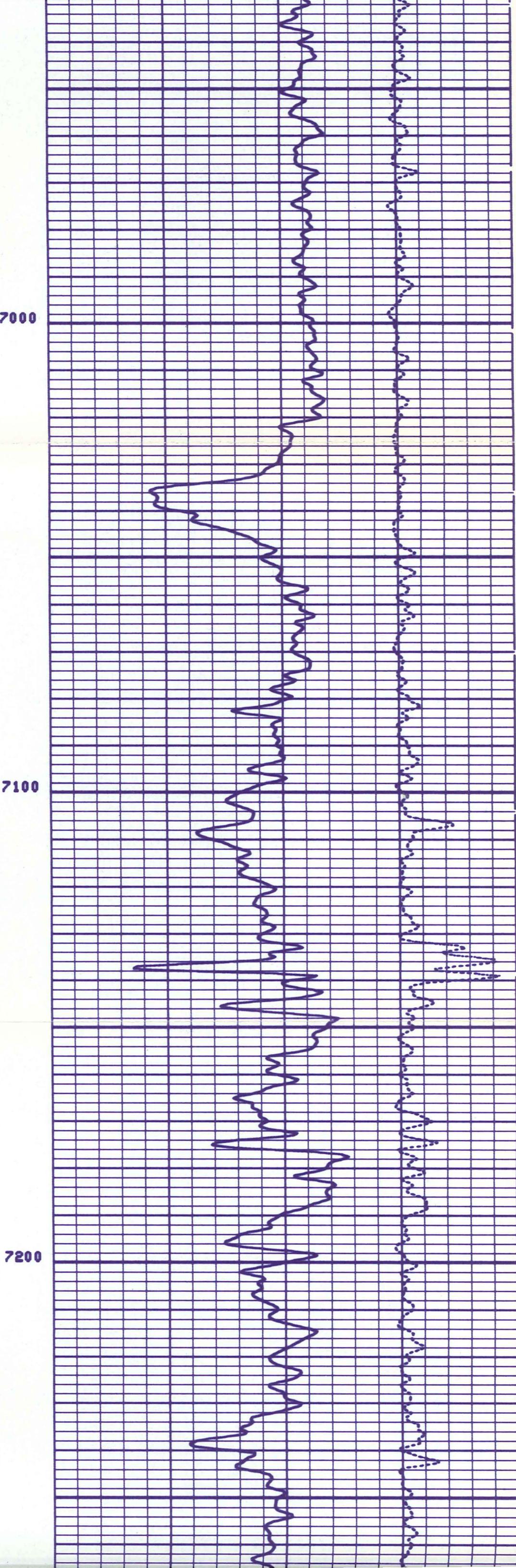
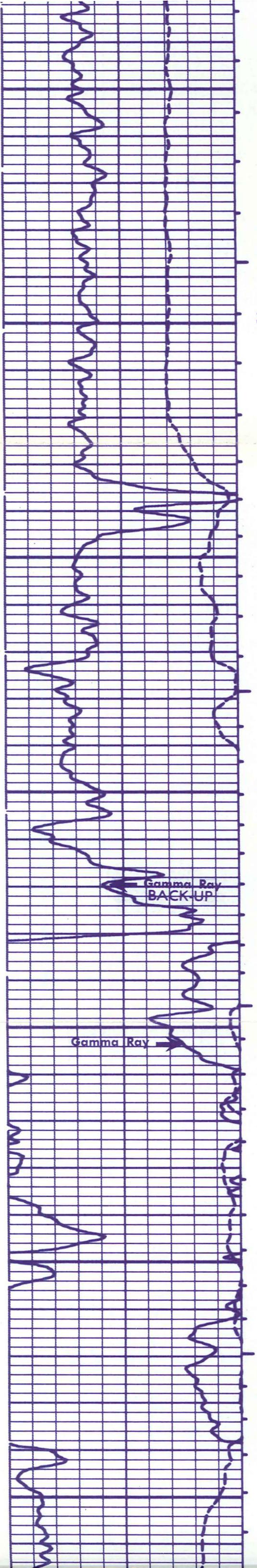
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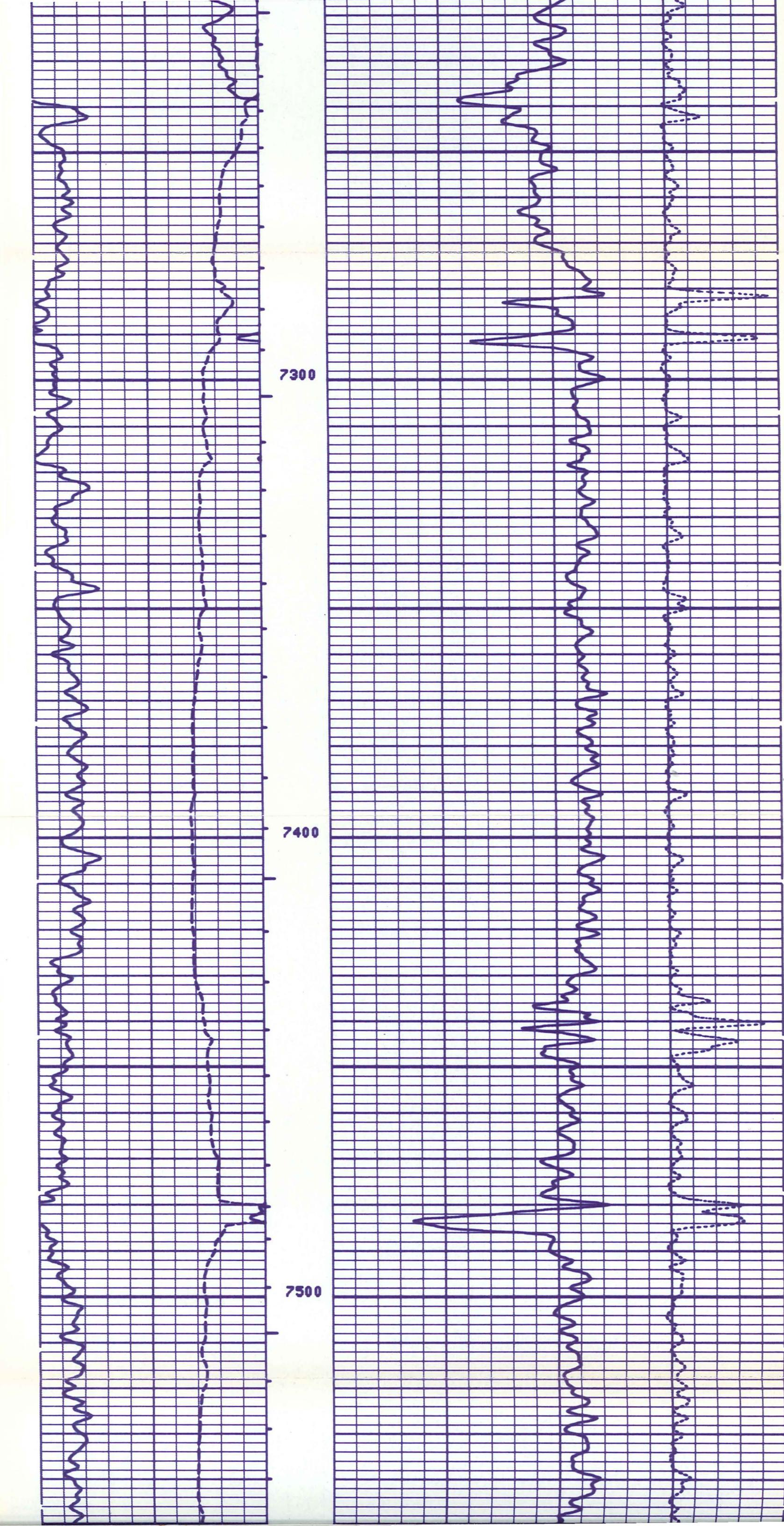


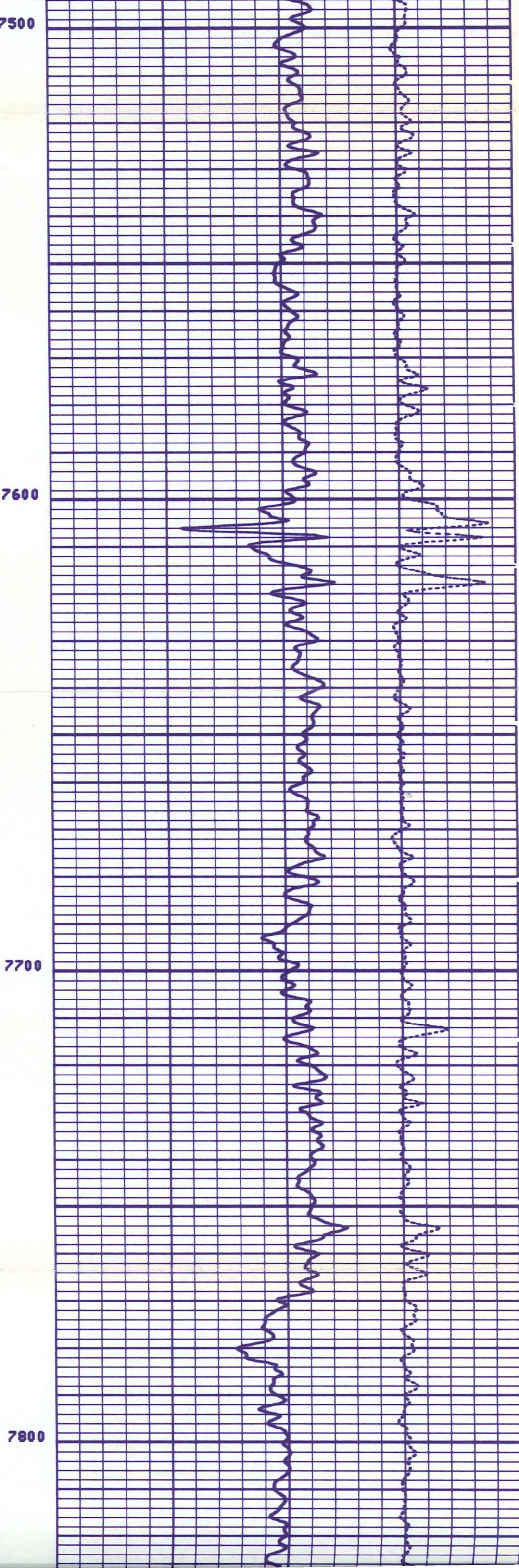
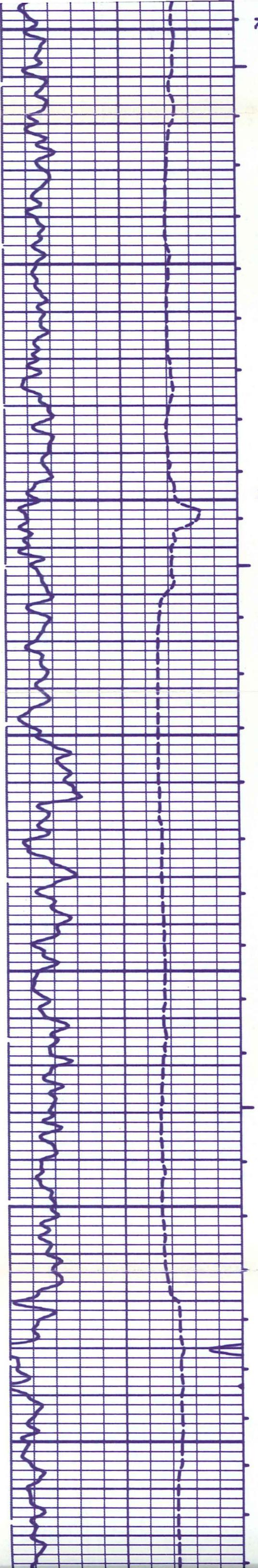


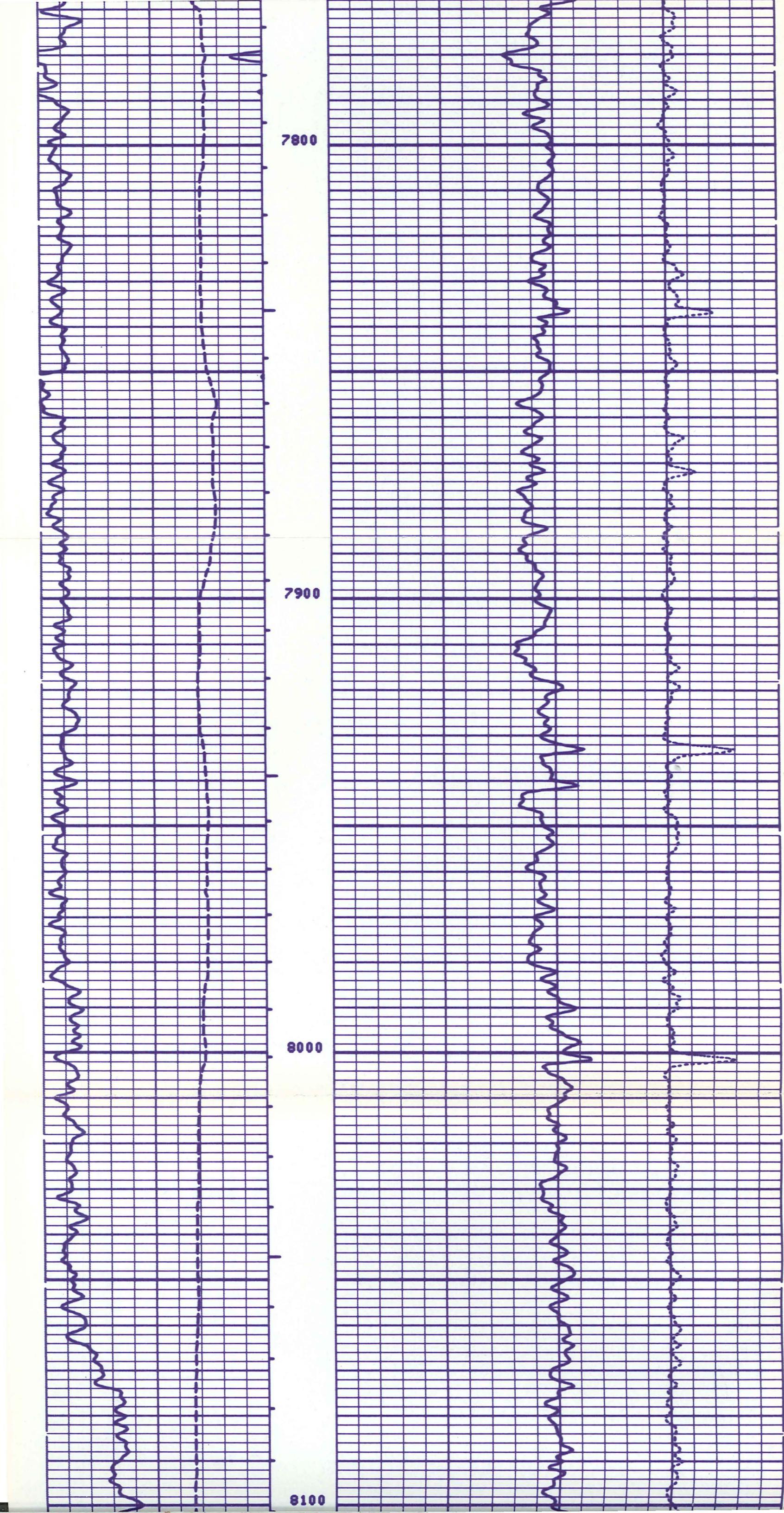


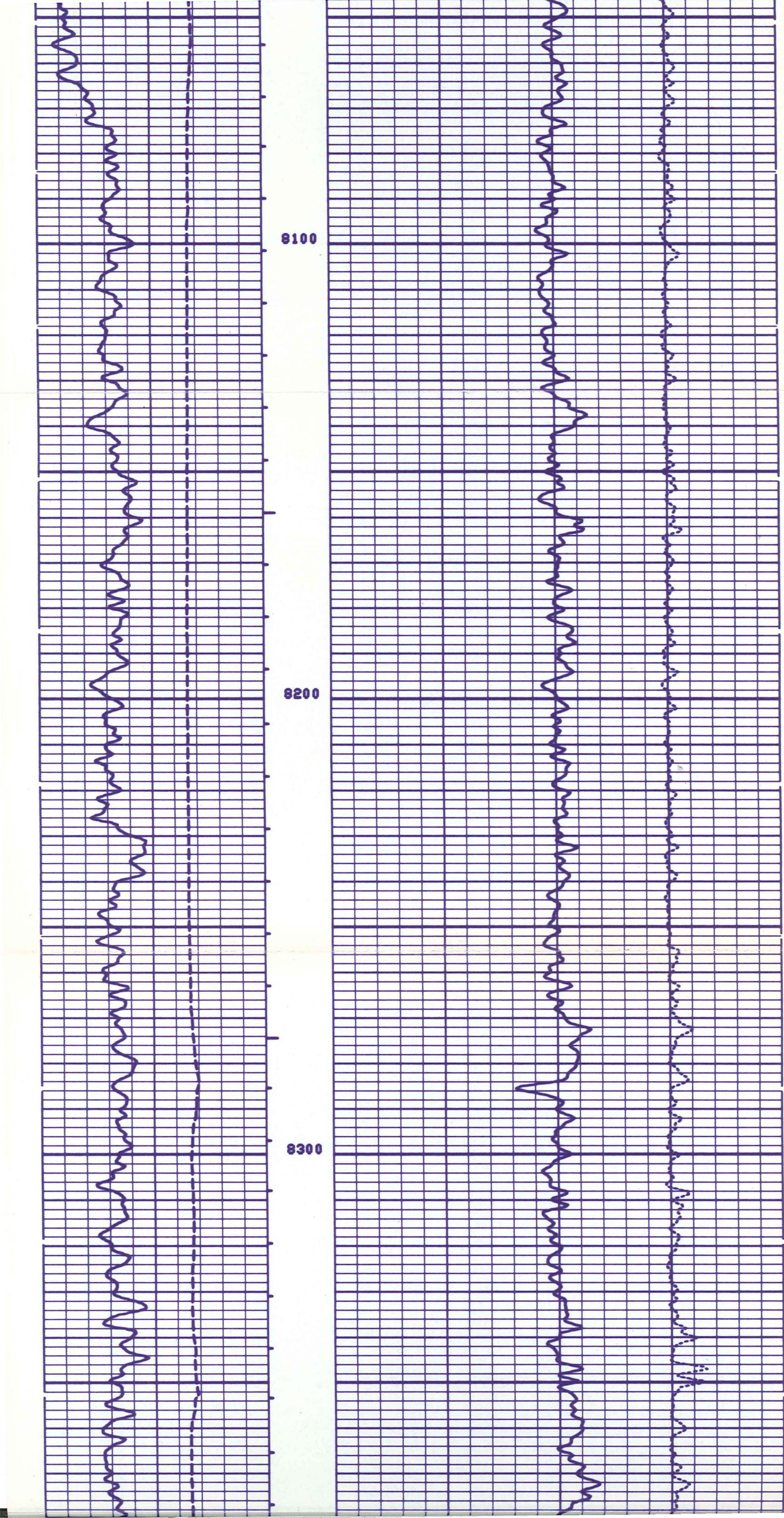


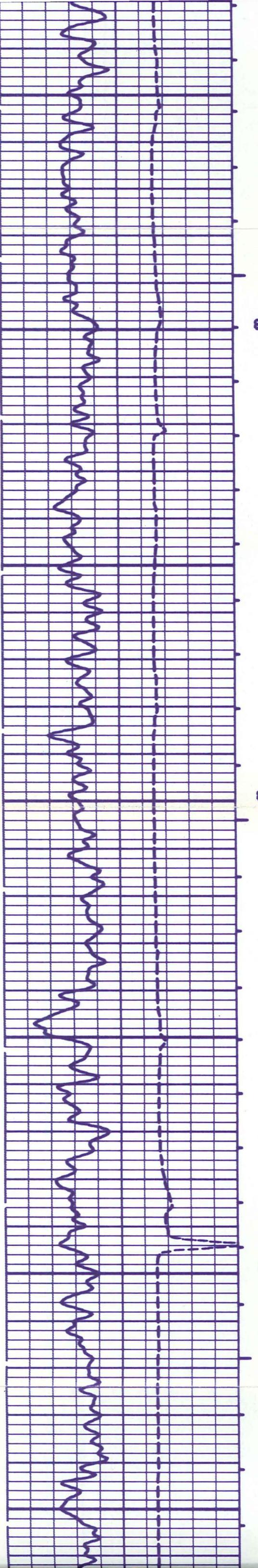








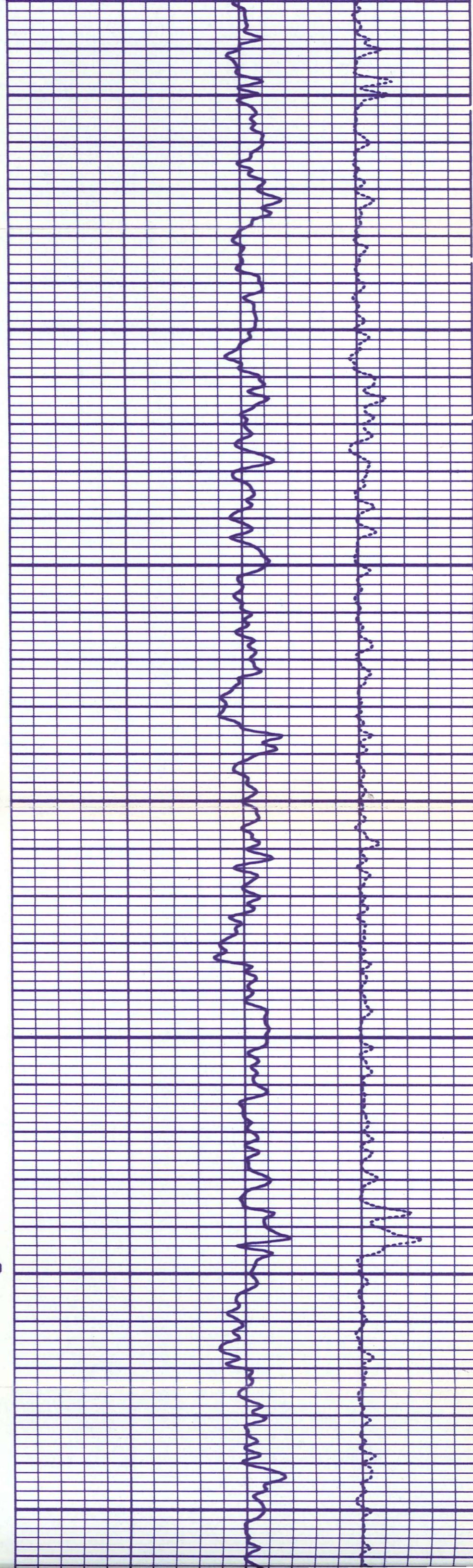


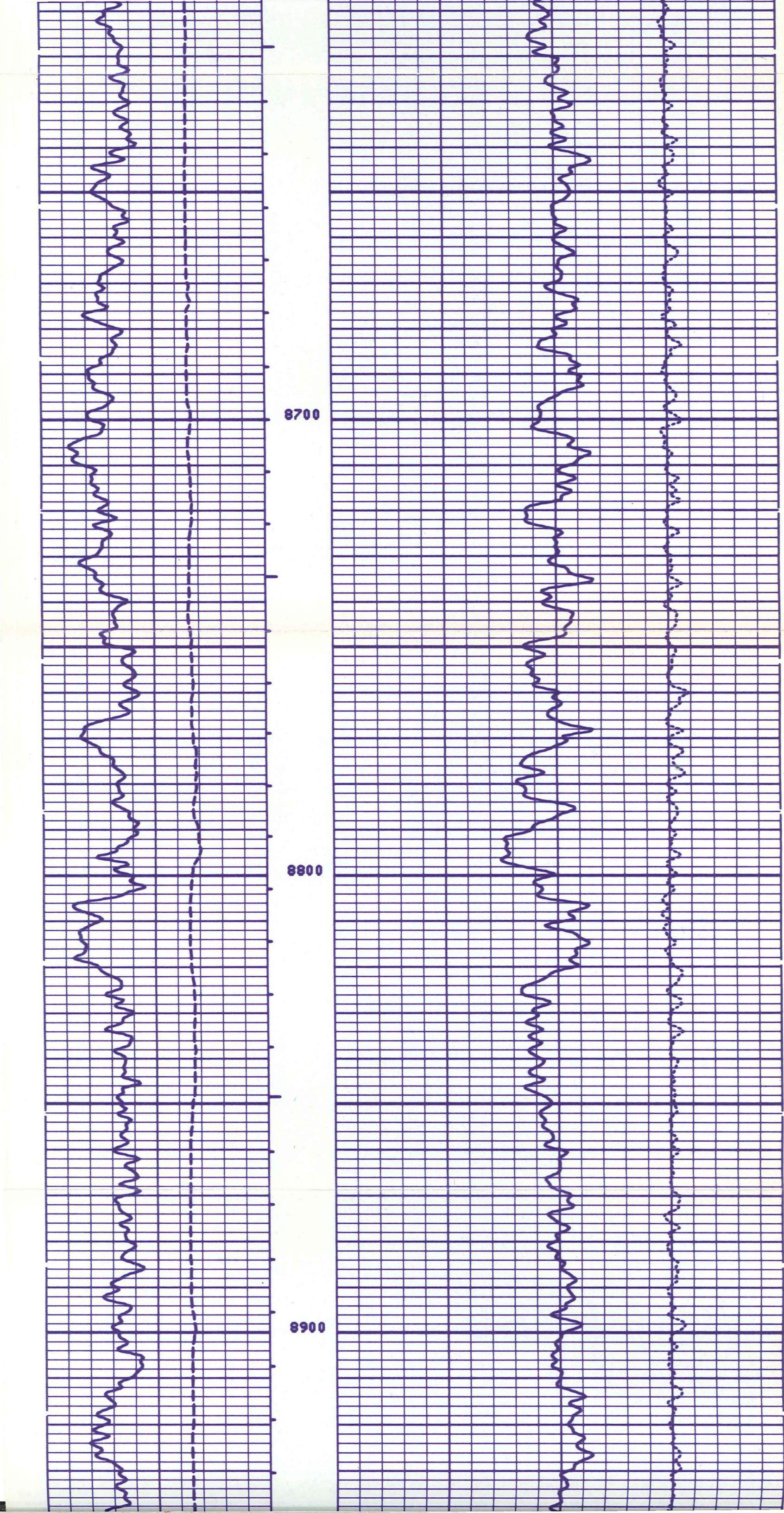


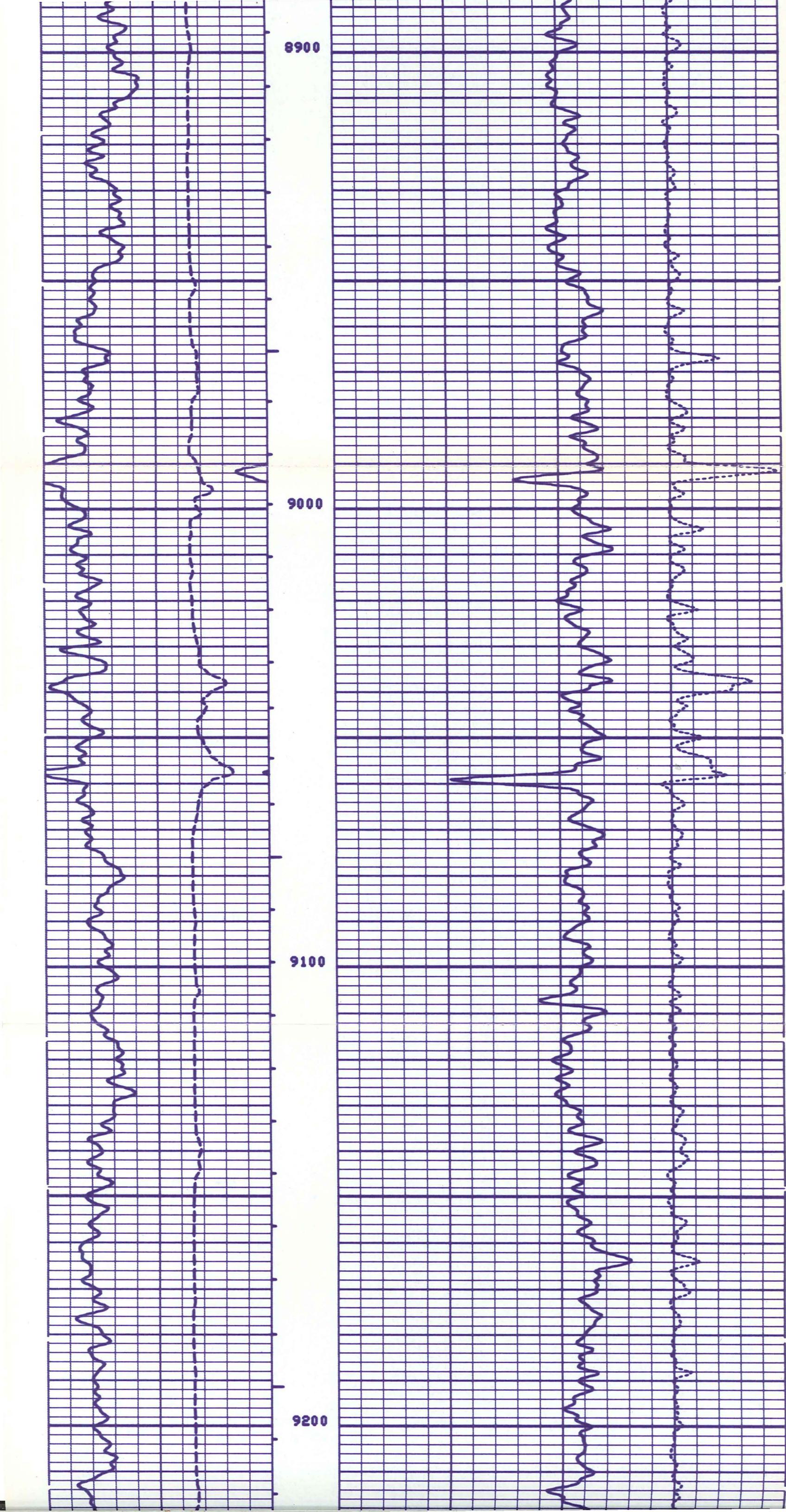
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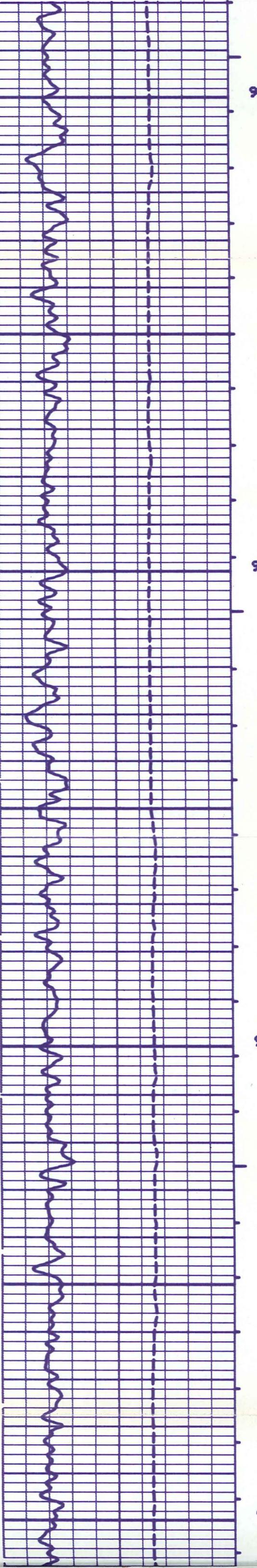
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8600







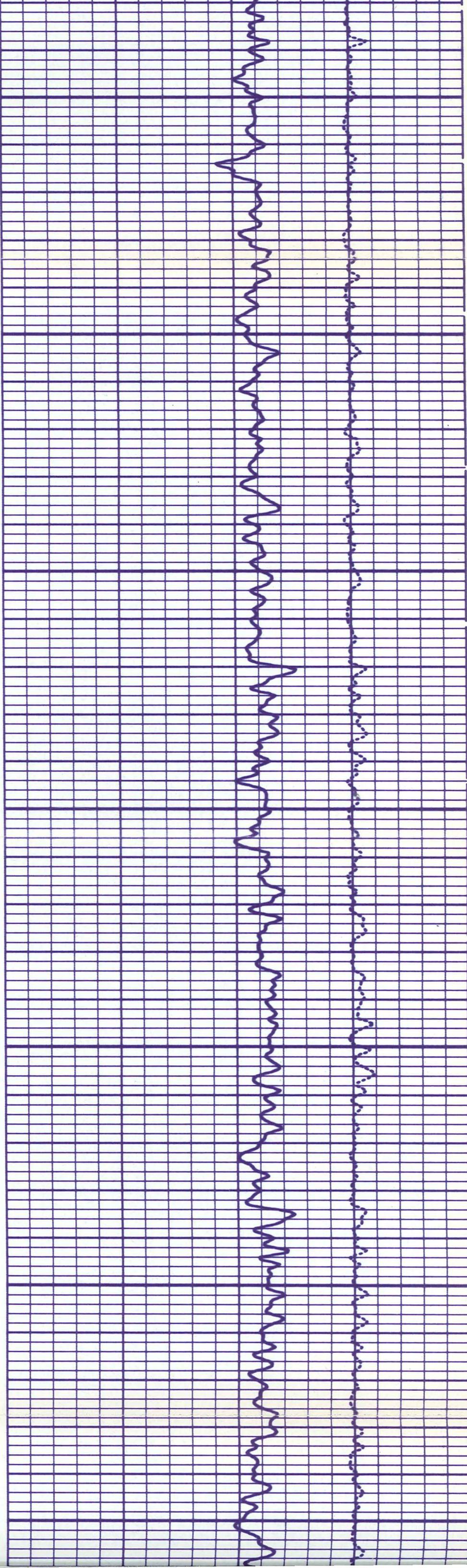


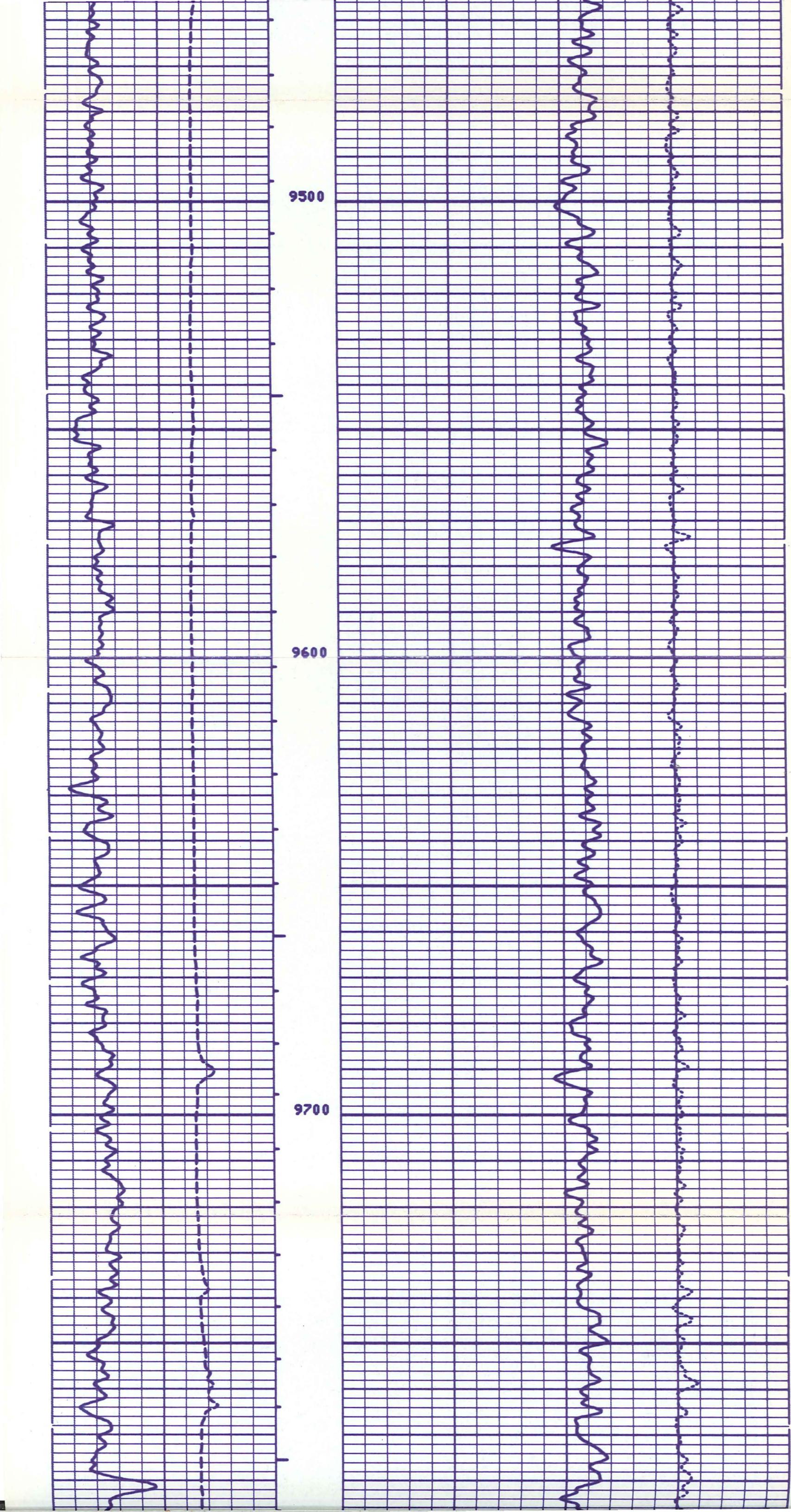
9200

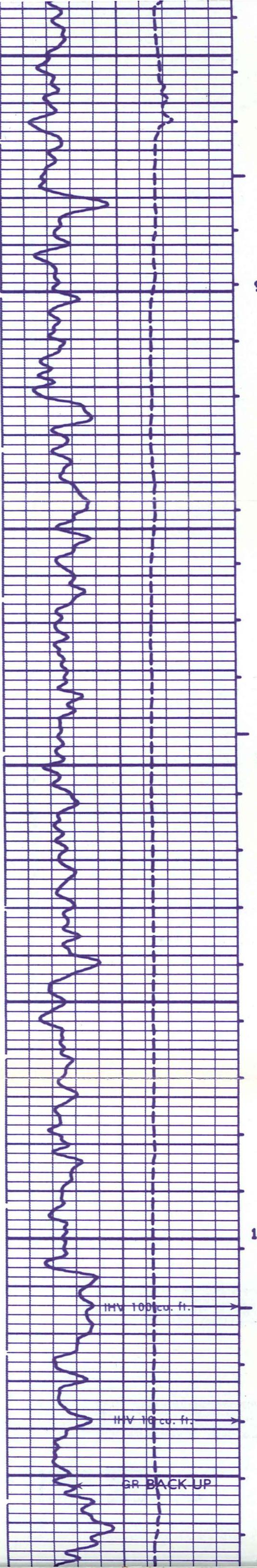
9300

9400

9500





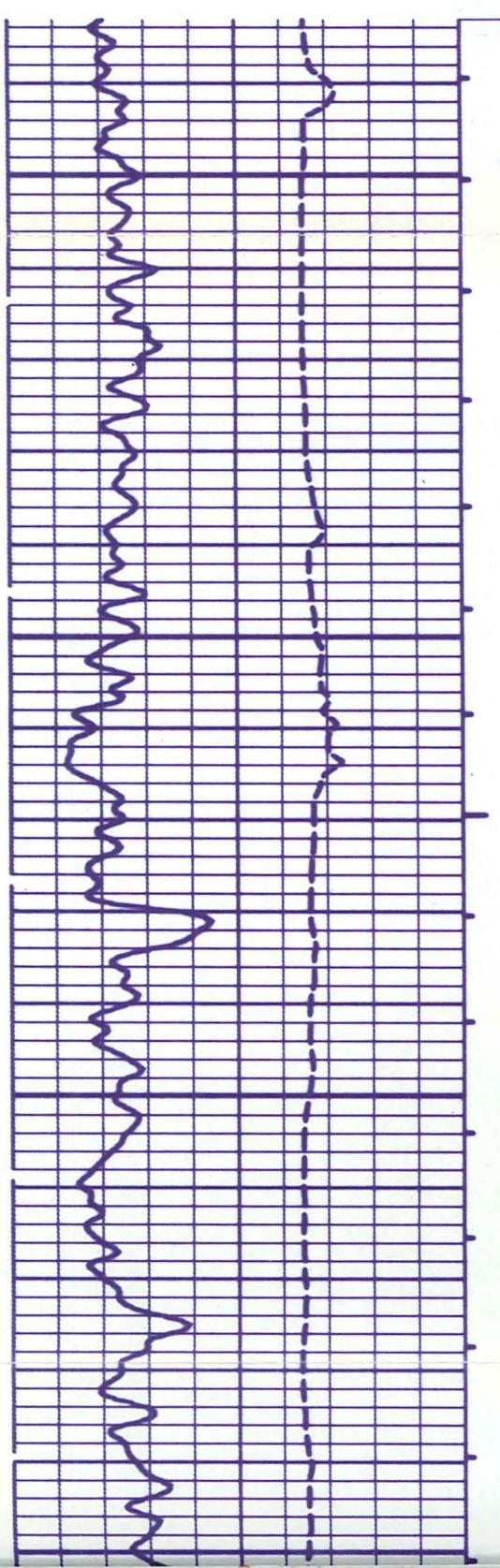
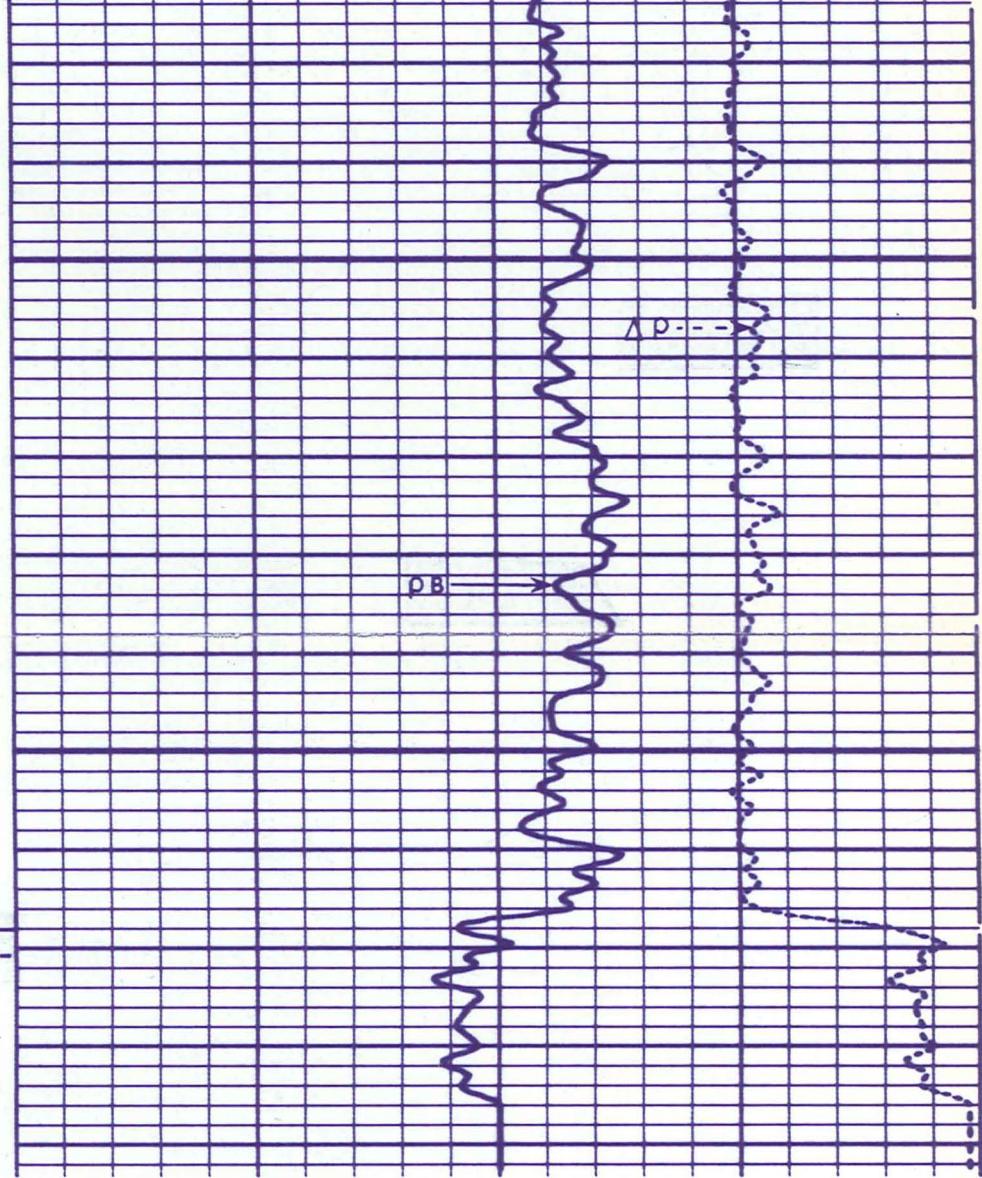
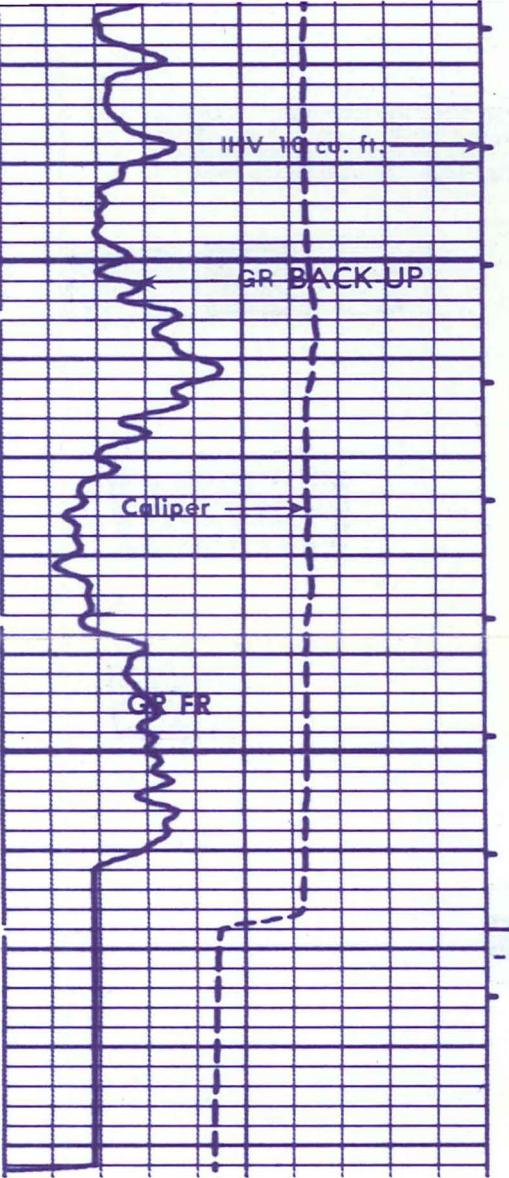


9800

9900

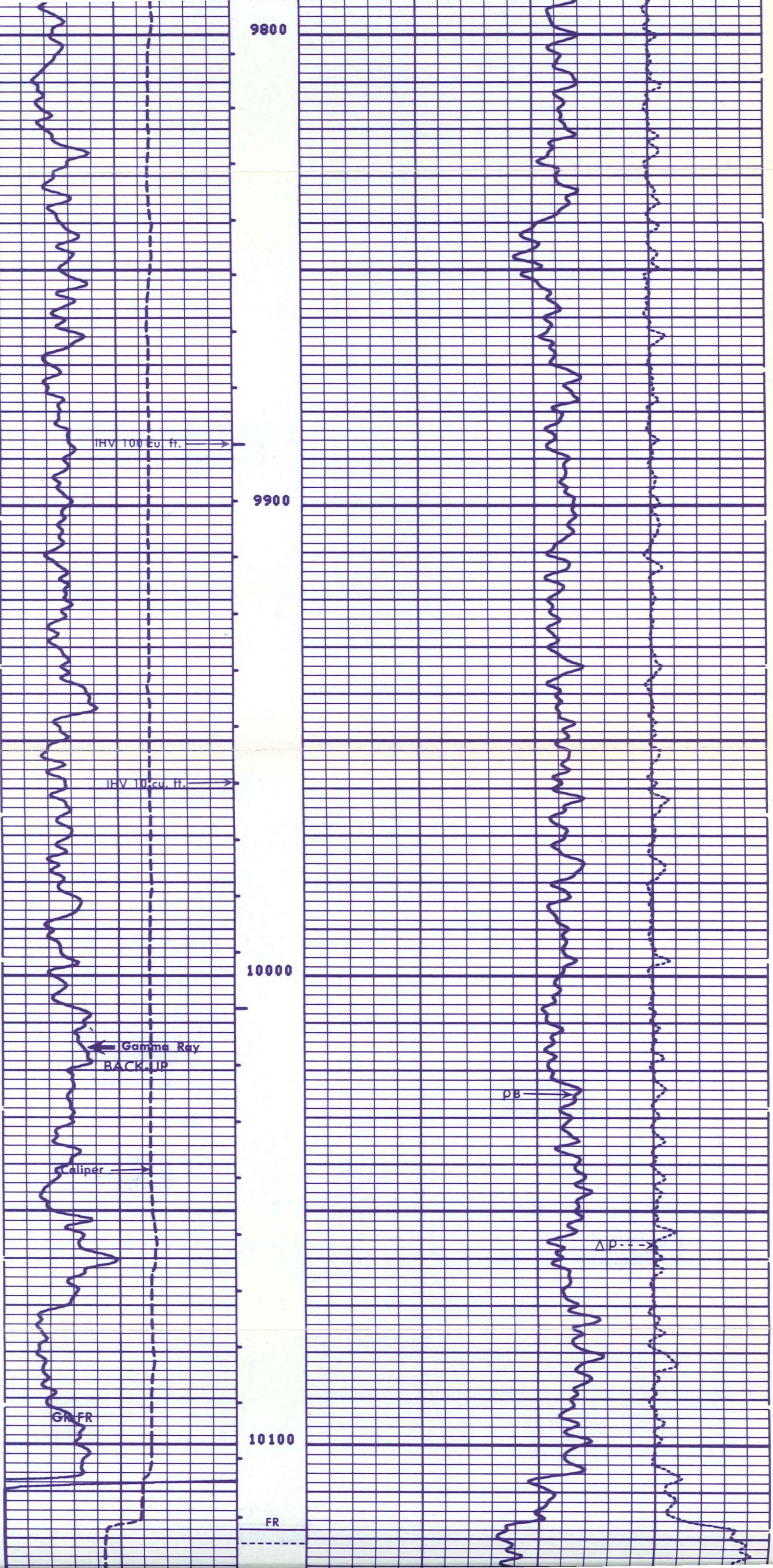
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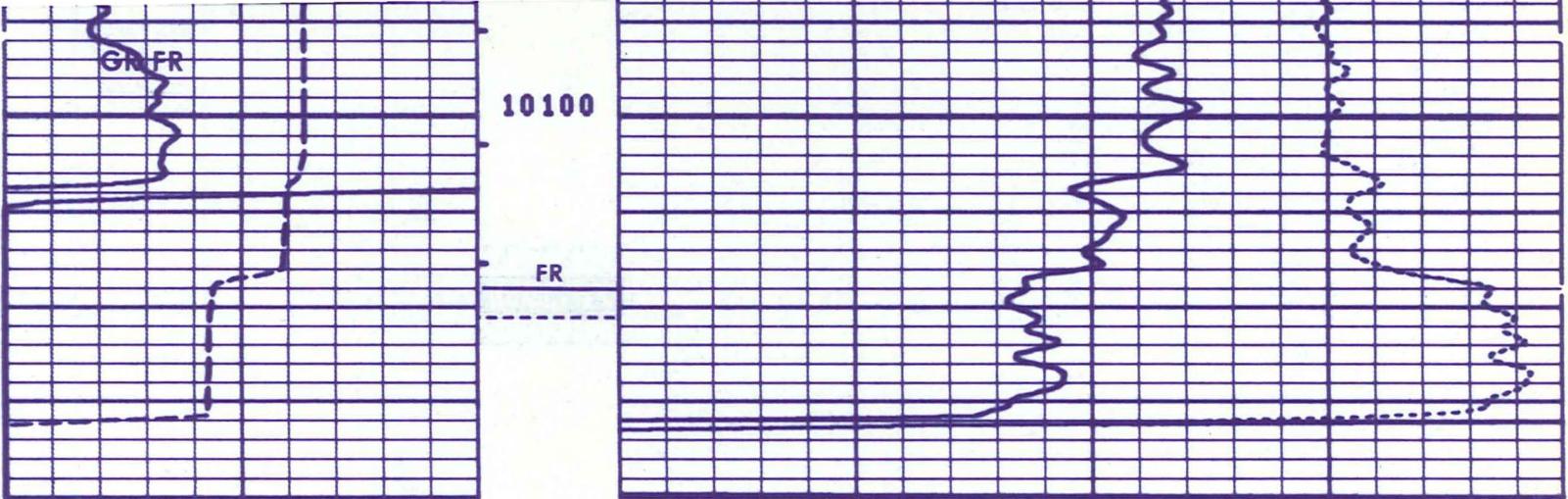
1 p -



6L-10-9

6L-10-10





REPEAT SECTION

COLISION

6.000	16.00
GR (GAPI)	150.0
0.0	

DRHO SG/C3

-0.250	0.2500
RHOB(G/C3)	3.000
2.000	

Run 1 BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/03/03
PROGRAM FILE: NUC (VERSION 12.4A 78/12/ 8)

SGTE DETECTOR CALIBRATION SUMMARY

GR	MEASURED		CALIBRATED		UNITS GAPI
	BKGD	JIG	164		
34	197				

CNTA DETECTOR CALIBRATION SUMMARY

NRAT	TANK CALIBRATED		JIG CALIBRATED		UNITS CPS
	0.0		2.28	2.15	

PGTK DETECTOR CALIBRATION SUMMARY

FFDC NFDC	BLOCK CALIBRATED		JIG CALIBRATED		UNITS CPS
	0	0	387	336	

PGTK CALIPER CALIBRATION SUMMARY

CALI	MEASURED		CALIBRATED		UNITS IN
	SMALL	LARGE	SMALL	LARGE	
10.3	15.0	12.0	18.5		

6
6
6
6
6
15871
15871
15871

Run 1 SHOP SUMMARY

PERFORMED: 79/03/01
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

CNTA DETECTOR CALIBRATION SUMMARY

NRAT	TANK MEASURED		JIG CALIBRATED	
	CALIBRATED	MEASURED	CALIBRATED	MEASURED
2.28	2.15	2.28	2.15	

(CNC:1364 , CNB:1371)

15871
15871

Run 1 SHOP SUMMARY

PERFORMED: 79/03/02

MEASURED CALIBRATED MEASURED CALIBRATED

NRAT 2.28 2.15 2.28 2.15

(CNC:1364 , CNB:1371)

15871

15871

Run 1 SHOP SUMMARY

PERFORMED: 79/03/02
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

PGTK DETECTOR CALIBRATION SUMMARY

	BLOCK	MEASURED	CALIBRATED	MEASURED	CALIBRATED	JIG	UNITS
FFDC	396	336		396	337		CPS
NFDC	694	527		693	527		CPS

(PGS:82 , PGC:104 , SFT:25)

16890

16890

16890

16890

16890

Run 2 BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/03/27
PROGRAM FILE: NUC (VERSION 12.4A 78/12/ 8)

SGTE DETECTOR CALIBRATION SUMMARY

GR	MEASURED	BKGD	JIG	CALIBRATED	UNITS
		47	195	164	GAPI

CNTA DETECTOR CALIBRATION SUMMARY

NRAT	TANK	CALIBRATED	MEASURED	JIG	CALIBRATED
	CALIBRATED	0.0	2.22		2.16

PGTE DETECTOR CALIBRATION SUMMARY

	BLOCK	CALIBRATED	MEASURED	JIG	CALIBRATED	UNITS
FFDC		0	329		336	CPS
NFDC		0	584		527	CPS

PGTE CALIPER CALIBRATION SUMMARY

CALI	MEASURED	SMALL	LARGE	CALIBRATED	SMALL	LARGE	UNITS
		7.3	10.0		8.0	11.9	IN

2

2

2

Run 2 AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 79/03/27
PROGRAM FILE: NUC (VERSION 12.4A 78/12/ 8)

CNTA TOOL CHECK

NRAT	BEFORE	AFTER
	2.16	2.15

POROSITY CHANGE (LIME): -0.000

PGTE TOOL CHECK

	BEFORE	AFTER	UNITS
FFDC	336	335	CPS
NFDC	527	530	CPS

7

7

Run 2 SHOP SUMMARY

FORUSITY CHANGE (TIME): -0.000

PGTE

TOOL CHECK

JIG

	BEFORE	AFTER	UNITS
FFDC	336	335	CPS
NFDC	527	530	CPS

7
7

Run 2 SHOP SUMMARY

PERFORMED: 79/01/16
PROGRAM FILE: SHOP (VERSION 10.52 78/6/28)

CNTA

DETECTOR CALIBRATION SUMMARY

TANK	JIG		
MEASURED	CALIBRATED	MEASURED	CALIBRATED

NRAT	2.22	2.16	2.22	2.16
------	------	------	------	------

(CNC:1252 , CND:1342)

7
7
7
7

Run 2 SHOP SUMMARY

PERFORMED: 79/01/29
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

PGTE

DETECTOR CALIBRATION SUMMARY

BLOCK	JIG	MEASURED	CALIBRATED	MEASURED	CALIBRATED	UNITS
-------	-----	----------	------------	----------	------------	-------

FFDC	321	321	321	321	321	CPS
NFDC	500	500	500	500	500	CPS

(PGS:59 , PGC:65 , SFT:606)

20400
20400
20400

5
5
5

Run 3 BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/05/18
PROGRAM FILE: NUC (VERSION 12.4A 78/12/ 8)

SGTE

DETECTOR CALIBRATION SUMMARY

GR	MEASURED	JIG	CALIBRATED	UNITS
	BKGD			GAPI
	46	215	164	

CNTA

DETECTOR CALIBRATION SUMMARY

NRAT	TANK	JIG	CALIBRATED
	CALIBRATED	MEASURED	CALIBRATED
	0.0	2.26	2.15

PGTK

DETECTOR CALIBRATION SUMMARY

FFDC	BLOCK	MEASURED	JIG	CALIBRATED	UNITS
NFDC	CALIBRATED				CPS
	336	417		328	
	527	777		563	CPS

PGTK

CALIPER CALIBRATION SUMMARY

CALI	MEASURED	CALIBRATED	UNITS
	SMALL	LARGE	IN
	8.8	12.5	

5
5
5
5

FFDC	336	417	328	CPS
NFDC	527	777	563	CPS

PGTK

CALIPER CALIBRATION SUMMARY

CALI	MEASURED		CALIBRATED		UNITS IN
	SMALL	LARGE	SMALL	LARGE	
	8.8	12.5	8.0	12.0	
			5		
			5		
			5		
			5		
			5		

Run 3 AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 79/05/19
PROGRAM FILE: NUC (VERSION 12.4A 78/12/ 8)

CNTA

TOOL CHECK

NRAT	JIG	
	BEFORE	AFTER
	2.15	2.16

POROSITY CHANGE (LIME): 0.001

PGTK

TOOL CHECK

FFDC	JIG		UNITS
	BEFORE	AFTER	
FFDC	328	329	CPS
NFDC	563	564	CPS
	9		
	9		
	9		
	9		
	9		
	20510		
	20510		

Run 3 SHOP SUMMARY

PERFORMED: 79/05/16
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

PGTK

DETECTOR CALIBRATION SUMMARY

NFDC	BLOCK		JIG		UNITS
	MEASURED	CALIBRATED	MEASURED	CALIBRATED	
FFDC	428	336	428	337	CPS
NFDC	728	527	728	527	CPS

(PGS:94 , PGC:108 , SFT:27)

20510
20510
20510
20510
20510
4
4
4

Run 3 SHOP SUMMARY

PERFORMED: 79/05/07
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

CNTA

DETECTOR CALIBRATION SUMMARY

NRAT	TANK		JIG	
	MEASURED	CALIBRATED	MEASURED	CALIBRATED
	2.25	2.15	2.25	2.16

(CNC:1488 , CNB:1559)

4
4
4
4
4

Run 3 SHOP SUMMARY

PERFORMED: 79/05/16
 PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

PGTK

DETECTOR CALIBRATION SUMMARY

	BLOCK		JIG		UNITS
	MEASURED	CALIBRATED	MEASURED	CALIBRATED	
FFDC	428	336	428	337	CPS
NFDC	728	527	728	527	CPS

(PGS:94 , PGC:108 , SFT:27)

20510
 20510
 20510
 20510
 20510
 4
 4
 4

Run 3 SHOP SUMMARY

PERFORMED: 79/05/07
 PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

CNTA

DETECTOR CALIBRATION SUMMARY

	TANK		JIG		UNITS
	MEASURED	CALIBRATED	MEASURED	CALIBRATED	
NRAT	2.25	2.15	2.25	2.16	

(CNC:1488 , CNB:1559)

4
 4
 4
 4
 1

FILE CAB 15 DRAWER



G L 0 2 5 8 3